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*P. A. Boyman*





THE FAMILY DOCTOR

AN

ENCYCLOPÆDIA OF DOMESTIC MEDICINE

AND

HOUSEHOLD SURGERY.

VOL. II:—H. TO Z.



THE  
FAMILY DOCTOR

BEING A COMPLETE

ENCYCLOPÆDIA OF DOMESTIC MEDICINE  
AND HOUSEHOLD SURGERY

COMPRISING

*A Full Description of the Human Frame*

AN ACCOUNT OF THE NATURE AND TREATMENT OF ALL DISEASES;  
OF THE DRUGS AND PREPARATIONS USED AS REMEDIAL AGENTS;  
AND OF THE READIEST MEANS OF OBTAINING, PREPARING,  
AND ADMINISTERING THEM.

THE WHOLE ARRANGED SO AS TO FACILITATE REFERENCE.

CLEARLY AND SIMPLY WRITTEN,

AND

ESPECIALLY ADAPTED FOR POPULAR USE.

BY A DISPENSARY SURGEON.

ILLUSTRATED WITH ALL THE MEDICINAL PLANTS, &c.

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# THE FAMILY DOCTOR:

## AN ENCYCLOPÆDIA OF DOMESTIC MEDICINE.

**HEN BLINDNESS.** A name sometimes given to Night Blindness, or *Nyctalopia*. See *Eye*.

**HEPATALGIA** (Greek *Hepar* or *Hepatos* the liver), pain in the Liver. From the same root we have also *Hepatic*, belonging to the Liver, as Hepatic Artery, Duct, Glands, Vein, and Plexus, all of which will be described when we come to treat of the Liver; as will also *Hepatorrhœa*, a morbid flow of bile. *Hepatitis*, inflammation of the Liver, and *Hepatocèle*, hernia of the Liver. Then there are two ligaments, described by Haller, and called by him *Hepato-colic*, and *H. renal*. *Hepato-gastric* is the name of the smaller omentum, which passes from the liver to the stomach; and that peculiar change in the lungs induced by inflammation, in which it loses its spongy crepitating character, and becomes hard and firm, so that it sinks in water, is called *Hepaticization*, or sometimes *Splenicization* (see *Lungs*.) Then again the term *Hepar* was formerly applied to several combinations of sulphur with alkalis, on account of their liver-like appearance: thus, we have *Hepar Antimonii*, Liver, or more properly, Oxy-sulphuret of Antimony; *Hepar Sulphuris*, Liver of Sulphur, the *Sulphuretum Potassæ* of the Edinburgh Pharmacopœia; and *Hepar Sulphuris Volatilis*, the Hydro-sulphuret of Ammonia, sometimes called Beguin's or Boyle's Fuming Spirits. None of these preparations are now much used medicinally. *Hepaticæ* is the Liverwort tribe of acotyledonous plants; *Hepatic air* is Sulphuretted Hydrogen Gas; and *Hepaticæ* is a variety of Barytes, containing a portion of Sulphur (which see).

**HEPATAPHARMACUM** (Greek *epta*, seven; and *pharmakon*, a medicine). A preparation which we sometimes read of in old medical books, said to be composed of seven ingredients—viz., Ceruse, Colophony, Incense, Lethargæ, Ox-fat, Pitch, and Wax.

**HERACLEUM GUMMIFERUM.** Gum bearing Heracleum; an umbelliferous plant,



supposed by some to be that which produces the *Gum Ammoniacum* (which see).

**HERB BENNET.** The *Gum Urbanum*, or Avens; sometimes called *Caryophyllata*, from its clove-like smell. See *Gum*.

**HERBE DU DIABLE.** Devil's Herb, a name given in St. Domingo to the *Plumbago Scandens*, on account of its acrid properties.

**HERB ROBERT.** A species of wild Crane's-bill, or *Geranium* (which see).

**HERBS.** In ancient days, the herbalist was the real or pretended curer of all diseases, and the preparer and vendor of famous nostrums; with him every plant of the field and woodland had its peculiar properties, which depended much on the time of gather-



ing, and the accompanying ceremonies. Our belief in the marvellous efficacy of Herbs, or "Yarbs," as the country people call them, is a good deal shaken now-a-days; but we still entertain a well-founded and rational belief in the virtues of many of them, or this work would not be illustrated with so many really medicinal plants.

As a general rule, the Herbs used in pharmacy should be collected when they are beginning to flower, in dry weather, and at mid-day, when the greatest quantity of moisture has evaporated. They should then be subjected to a gentle heat, spread out thin, and frequently turned, to complete the drying process as quickly as possible; the leaves, or whatever part it is desired to preserve, should be put into bags, and hung up in a dark place until wanted; before drying in this way, the plants should be well shaken, to expel insects and their eggs, and all discoloured and rotten portions rejected.

Almost any common Herbs are useful for fomentations, their principal utility being the retention of heat; some, however, are better than others. Camomiles and Mal-lows are among the best.

**HERCULES BOVIL.** Names emblematic of the strength of Hercules and a bull combined; applied to a solution of Gold and Mercury in a distillation of Copperas, Nitre, and Sea Salt; it is violently cathartic.

**HEREDITARY** (Latin *hæres*, an heir). A term applied to diseases supposed to be transmitted from parents to their children. It is an undisputed fact, and has been so from remote ages, that at least a bias or tendency towards certain diseases is transmitted through many generations. We know for certain, that there are maladies which are so directly inherited as to show themselves immediately on birth—such has been the case with small-pox; but this is by no means the common rule, that, being for the hereditary taint to lurk in the system, awaiting favourable circumstances for its development. Sometimes these circumstances never occur, and so the disease remains undeveloped; but it will probably show itself in the next generation, and vindicate its character for persistence.

Hereditary predisposition to certain diseases may be derived from parents who have not themselves received them in the same way. Drunkenness, or whatever tends to debilitate the system of the parent, will be almost sure to affect the constitution of the children. Nervous irritation, or great mental excitement of any kind, although but of a temporary character, may often be traced in its effects upon the offspring; so, also,

syphilitic eruptions will break out in children, one or both of whose parents have been long afflicted with syphilis. This disease, with scrofula and consumption, gout and rheumatism, asthma, ophthalmic affections, epilepsy, paralysis, insanity, and other diseases, are clearly ascertained to be transmittable by hereditary taint; especially is this the case with consumption, gout, gravel, and insanity, as is well known to insurance directors, who frame their forms of proposal for life policies accordingly. A very curious and interesting branch of physiological inquiry is this law of Hereditary taint. We know that it includes many diseases, but not *how* many; therefore we can assign no limits to its operation, neither can we state the precise conditions under which it acts. Enough we do know, however, to satisfy us that much of the mischief caused by it might be avoided, if persons would make it a matter of duty to ascertain their own or their parents' peculiar predispositions to disease, and avoid as far as possible all which might tend to excite and develope it. Especially should a marriage be avoided between two persons in whom, or in whose families, there is the same hereditary taint, and more particularly if a blood relationship exists between them. Degeneration is inevitably the result of intermarriages among relations, and hereditary diseases are sure to acquire greater power and permanence where there is a weakly state of the body. As we often see peculiarities of feature and physical conformation, as well as mental idiosyncracies, running through families, so it seems reasonable to expect certain forms of organic or functional disease; and we may well believe that contracted diseases may be transmitted, as well as inherited ones. How careful, therefore, should every person be to avoid all which may tend to develope latent maladies; and, especially, all excesses and indulgences which may entail bodily weakness or mental imbecility on his offspring. Verily, if the parents eat "sour grapes," the children's teeth will be "set on edge."

**HERMAPHRODITE** (Greek *Hermes*, Mercury, and *Aphrodite*, Venus). One in whom the organs of generation are a compound of those pertaining to both sexes. This is a congenital malformation, a monstrosity of nature, which no art can rectify, and a subject which it would serve no useful purpose to dilate on here; we have simply introduced it in order to explain the meaning and origin of the term.

**HERMETIC SEALING** (Greek *Hermes*). Substances which it is desired to keep for a

length of time, from contact with the air, are sometimes hermetically sealed, that is, they are put into a glass tube, the open end of which is then heated to the melting point, and when in this state, the edges are bent in and closed by means of a pair of tongs. The Egyptian god, Hermes, was supposed to have taught the practice of Chemistry, which was from him called the Hermetic art; hence the term applied to this operation.

**HERMODACTYLUS.** Greek *Hermes*, and *daktylos*, a finger, as some say; but more probably from *Hermus*, the name of a river in Asia, on whose banks grows the plant to which the above name was applied; it is supposed to be identical with the *Colechium Autumnale*. See *Colechicum*.

**HERNET'S DENTRIFICE.** A kind of Tooth Powder, the composition of which was for a long time unknown; it is now ascertained to be Powdered Orris Root, Cream of Tartar, and Cuttle Fish Bone, 1 ounce of each of the two former, to 8 ounces of the latter. It is a good cleansing application for the teeth, and has a tendency to sweeten the breath. See *Tooth Powder*.

**HERNIA** (Greek *ernos*, a branch, so-called from its protruding forward). The protrusion of one or more of the viscera into a sac, formed of the peritoneum. There are various kinds of Hernia, each of which is distinguished by a particular name, having relation to some peculiarity connected with it; thus we have, 1st., as regards situation:—*H. cruralis*, or Femoral Hernia, a protrusion under Poupart's Ligament, descending through the crural or femoral ring, sometimes called the crural canal. *H. inguinalis*, Inguinal Hernia, sometimes called Bubonocele, or Hernia of the Groin; this is termed *complete* when it protrudes through the abdominal ring; *incomplete* when it does not. *H. ischiatica*, when it protrudes at the ischiatic notch, in front of the Os Innominata, or Hip Bone. *H. perinealis*, Hernia of the Perinaeum, occurring in men between the bladder and rectum; in women between the rectum and vagina. *H. pubendialis*, Hernia of the Pubendum, which descends between the vagina and the ramus ischii into the labium. *H. scrotalis*, Scrotal Hernia, sometimes called Oscheocele; there are two varieties of this, termed *Enteroscheocele*, when omentum, or intestine, or both, descends into the scrotum; *Epiploscheocele*, when omentum only; and *Steatocele*, when neither, but only sebaceous matter descends. *H. thyroidalis*, Hernia of the Foramen ovale; (See *Heart*). *H. umbilicalis*, Umbilical Hernia, sometimes called *Omphalocele* or *Exomphalos*. In this case

the bowels protrude at the umbilicus or navel; it is termed *Pneumatomphalos*, when caused by flatulency. *H. vaginalis*, Hernia of the vagina; it is sometimes called *Elythrocele*, and occurs within the Os externum. *H. ventralis* or Hypogastrocele, Hernia, occurring at any part of the front of the abdomen, generally between the muscles.

We next distinguish Hernia by its contents, as *H. cerebri*, or *Encephalocele*, Fungus Cerebri, or Hernia of the Brain (which see). *H. intestinalis*, or *Enterocoele*, containing intestine only. *H. omentalis*, or *Epiplocele*, containing omentum only—when both this and intestine are the contents it is called *H. entero-epiplocele*. *H. uteri*, or *Histerocoele*, Hernia of the Uterus or Womb. *H. vesicalis*, or *Cystocoele*, Hernia of the Bladder. *H. corneæ*, or *Ceratocoele*, Hernia of the Cornea: (See *Eye*.)

The third distinction of Hernia has respect to its condition, as *H. congenita*, Congenital Hernia, making its appearance at birth; *H. incarcerata*, Strangulated Hernia, that which cannot be reduced with constriction, but requires an operation.

The fourth distinction is as to its internal seat: *H. mesenterica*, or *mesocolica*, Hernia through the lacerated mesentary or mesocolon; *H. phrenica*, Hernia of the Diaphragm, and *H. intestinalis*, in which the intestines protrude through a loop formed by adhesions.

Then there are certain cases to which the term Hernia is misapplied, as *H. gutturis*, enlargement of the thyroid gland (see *Bronchocele* or *Goitre*); *H. sacci lacrymalis*, Rupture of the Lacrymal Sac, it is also called *Mucocele*, or *Fistula lacrymalis* (see *Eye*); *H. varicosa*, or *Cirsocele*, a varicose enlargement of the spermatic vein; *H. ventosa*, or *flatulenta*, sometimes called *Pneumatocoele*; any Hernia distended with flatus, or wind; *H. carnosae*, or *Sarcocele*, a fleshy enlargement of the testes, or a tumour seated in the scrotum.

Then we call Hernia *Reducible*, when it can be reduced or replaced within the abdomen; *Irreducible*, when it is not constricted, yet cannot, owing to adhesions, be replaced; and *Incarcerated* or *Strangulated*, when it is constricted, and cannot be reduced.

As to the *causes* of Hernia, we term them *Predisposing* when, owing to weakness and relaxation of the muscles, the openings through which the bowels are likely to escape are unusually large; and *Exciting*, when there is powerful action on the abdominal viscera and muscles, owing to jumping, coughing, or other violent exertion.



For treatment of all these cases, see *Rupture*.

**HERNIOTOMY** (Hernia, and Greek *tome*, section). The operation for Strangulated Hernia. See *Rupture*.

**HERPES** (Greek *erpo*, to creep). This is a class of eruptions of the skin, consisting of clusters of vesicles seated upon inflamed patches of irregular size and form. Bateman divides them into the following species: *H. circinatus* and *H. iris*, Vesicular and Rainbow Ringworm (which see); *H. labialis* and *H. præputialis*, Herpes of the lips and of the prepuce; *H. phlyctænodes*, known as *Miliary* and *Nivles*; *H. Zoster*, *Cingulum* or *Shingles* (which see).

**HERPES MALIGNUM ANGINOSUS**. A name proposed to be given to a disease of the throat, which has recently made its appearance in England. It has been known for some years to the French, who have called it *Diphtherite*, from the Greek *diphtheritis* or *diphtherus*, one clothed in skins; from *diphthera*, skin or leather. This name was given to the disease on account of its tendency to form false membranes over the part affected; it is the opinion of some who have most closely observed the disease, that it is decidedly herpatic, and therefore the above name has been proposed for it. "It varies in extent," says Mr. Cummoek, of Boston, in Lincolnshire, where it has prevailed, "from simple Herpes of the lips and nose, which are covered with vesicles, which burst, ulcerate, and heal in two or three days, to the most extensive inflammation, and sloughing and ulceration of the cheek, the palate, and the pharynx; and more in children than adults. It extends into the larynx and trachea, and kills by asphyxia."

"In the mildest form there is a tendency to ulceration beneath a white, loosely-attached membrane, which consists of epithelium, coagulated with viscous mucus, and lymph. In most cases the vesicular nature can be distinctly traced for a few hours after its commencement, from the large patch within the cheek, or upon the gum, which will slough like *canerum oris*, to the more diffused bulbæ upon the soft patch and pharynx. I believe that, in some instances, it extends to the gullet and stomach."

Diphtheria comes on, in many instances, very suddenly, like cholera, influenza, and erysipelas, without any warning symptoms; in others, there is soreness of the throat, like tonsillitis, or of the naris, like catarrh; or there is pain in the deglutition, like pharyngitis, or cynanche maligna; shiverings are very irregular.

The specific cause of the disease is atmos-

pheric; as in cholera, influenza, typhus, and potatoe rot. Debility, cesspools, malaria, and all nuisances predispose to it; and all irregularities of regimen, cold drink when heated, sudden changes of temperature, and over exertion, are exciting causes.

The principles of treatment are antiseptic and tonic, stimulant and nutritious. The capillary system should not be engorged with fluids, neither should anything evaporating be applied to the skin. Blisters inflame and ulcerate; leeches debilitate and their bites slough; and strong purgatives cannot be borne. Temperate, dry, and well-ventilated bed-rooms, are a desideratum; a Calomel purgative, varying in strength with the age of the patient. In children, where there are symptoms of laryngitis, a rapid exhibition of the Chloride of Mercury, such as a grain or two every hour until the breathing is easier; then every three or four hours until the false membrane is loosened, and the bowels evacuate green stools, or vomiting commences. It has been found that children who are teething have the most inflammatory symptoms. Decoction of Bark, with Hydrochloric Acid, varying the dose of the latter from 1 minim to 10 every four hours, in from a teaspoonful to two table-spoonful of the former. Gargle with Chloride of Sodium and Vinegar, a tablespoonful of each in a teacupful of hot water; also inject this up the nostrils when they become obstructed; this relieves the breathing, destroys the fetor, and allows the ulcers to heal.

Apply a stick of Nitrate of Silver to every part where the false membrane or exudation can be seen; when the disease spreads beyond the caustic case, a probang and a clean sponge saturated with a strong solution of Nitrate of Silver will answer.

Rub the external fauces with Compound Iodine Ointment night and morning, and, where erysipelas may appear, apply the Stick caustic, and lay on a plaster of strong Mercurial Ointment.

Keep all about the patient sweet and clean, and give a nutritious diet—such as mutton, milk, rich gruels, and beef tea; and a warm Negus-compound of Port Wine and Water, equal quantities, with Sugar and Lemon. All the drinks should be taken warm.

This is not an infectious disease, except under extraordinary circumstances. Where it has occurred, which is only in a few localities, the deaths have been very numerous, as many as five having died in one family.

**HERRING**. This is the *Clupea harengus* of naturalists; a fish which frequents our coast in immense shoals, and furnishes sub-

sistence at certain seasons to a large proportion of the working population; it is no doubt nutritious, but too oily to suit weak stomachs. See *Fish*.

**HESPERIDES.** The old name for a genus of plants whose fruits are generally acidulous and refreshing; it includes the Bergamot, Citron, Lemon, Lime, Orange, and Shaddock, such as might be supposed to have grown in the famed gardens of the Hesperides; hence the name. A bitter inodorous principle procured from the Orange has been called *Hesperidine*.

**HETEROGENEOUS** (Greek *etero*, other, and *genos* kind). A term applied to compound substances, the parts of which are of different kinds; its opposite is *Homogeneous*.

**HETEROPATHY** (Greek *eterus*, other; and *pathos*, a disease). The art of curing diseases; founded on differences, by which one morbid condition is removed by engendering another. This is the opposite of *Homœopathy* (which see).

**HEUCHERA**, or Alum root. The *Heuchera* *Cortusa*; a plant valued in America for its astringent properties, being used as a styptic in external hæmorrhages and cancerous sores.

**HIBISCUS** (Greek *ibiskos*, mallow). A genus of dicotyledinous plants belonging to the natural order *Malvaceæ*; they are mostly natives of the hot parts of Asia and America, and abound in mucilage; several of them are employed for various economical purposes, for instance, the petals of *H. Rosa Sinensis* are astringent, and are used in China as a black dye for the hair and eyebrows. The seeds of *H. Abelmoschus* are employed as stomachics (see *Abelmoschus*). The root of *H. Manichot*, yields a mucilage which is used by the Japanese to give a proper consistency to their paper, &c.; the leaves of *H. Cannabinus* and *Arboreus* are eatable, as are also the leaves and fruit of the *H. Esculentus*.

**HICCUGH** or **HICCUP**. Of this compound word it has been suggested that the first syllable *hic* may have reference to *hitch* or *catch*; *hiccup* is the general pronunciation. This is a convulsive catch of the respiratory muscles, causing spasmodic contraction of the diaphragm, with a partial closure of the larynx; generally, it is but trivial and transient, causing no permanent inconvenience; but, sometimes when it occurs in the latter stages of acute disease, it is very alarming, indicating a giving way of the nervous system.

Young females of an hysterical tendency sometimes suffer from obstinate Hiccup, we have known it continue for weeks with but

little cessation, except during the hours of sleep, and, occasionally, breaking in upon them. Long fasting, or the sudden introduction of some strong stimulant into the stomach will often cause a common Hiccup, for which cold water, continually sipped and swallowed, will often prove a remedy; but nothing is so likely to remove it as strong excitement of the mind. Acupuncture has been recommended as a remedy, but we have never seen it tried, and much question the desirability of its application. Most antispasmodic medicines are likely to be of service, and we have seen the following given with good effect:—Carbonate of Soda, 1 drachm; Sulphuric Ether, 3 drachms; Tincture of Ginger, 2 drachms; Tincture of Gentian, 4 drachms; Camphor Mixture, sufficient to make 8 ounces. Take two table-spoonsful every two or three hours. Sometimes hot applications to the upper part of the chest and throat will relieve the symptoms; but, if all these should fail, a surgeon had better be consulted, especially if the patient is in a weak state.

**HIDROTICA** (Greek *idros* or *idrotos*, sweet), medicines which cause perspiration; (see *Sudorifics*). The name *Hidron*, from the same root as the above, has been given to Eczema, or heat eruptions; the halo which surrounds the vesicle is popularly named a heat spot.

**HIERA PICRA** (Greek *ieros*, holy; and *pikros*, bitter). The two words of which the above is compounded express the high estimation in which this preparation was once held, and its bitter taste. It is the popular name—often corrupted to “Hikery Pikery—” for Powdered Aloes with Canella Bark, the *Pulvis Aloes cum Canella* of the Pharmacopœias. It was formerly called *Hiera Logadii*, and made into an electuary with honey; it is a good purgative medicine, but extremely nauseous. See *Aloes*.

**HIERONOSIS.** (Greek *ieros* and *nosus*, a disease), literally sacred disease, an ancient name for epilepsy; called also *Morbus Sacer*.

**HIP.** Surgical name *Isehium* (which see). The *hip joint* is formed, on the one hand, by the rounded head of the thigh-bone, and, on the other, by the deep cup-like cavity prepared for its reception in the bones of the pelvis; it is a good example of the ball and socket joint.

**HIP JOINT DISEASE**, called *Morbus coxarius*, generally occurs in children of a scrofulous habit. Professor Syme's description of it is so clear and simple, that we are tempted to quote it verbatim:—“Hip Disease prevails in cold moist climates, and attacks chiefly children between the ages of



seven and fourteen, thought it is not unfrequently met with both before and after that time of life. The first symptom complained of, is generally pain in the knee, which often exists for months, before any indications can be perceived of the true seat of the disease. Sooner or later, the patient is observed to walk awkwardly and less vigorously than usual; and when the circumstances on which the difference depends, are investigated, it appears that the affected limb is elongated and emaciated; that the convexity of the hip is flattened, so that the furrow between it and the thigh is less distinct and more oblique in its direction, and that in standing, the foot is advanced a little before the other one, with the toe slightly averted; and that the patient does not rest his weight upon it. Pain is now felt in the Hip Joint itself, and though aggravated by motion, often becomes more severe from time to time, without any such cause of irritation. It is most apt to do so during the night, particularly when the weather is wet and changeable. In the second stage, the disease generally remains several months, and, sometimes, a year or two. At length the symptoms which have been mentioned, either disappear, and the limb recovers its former condition, or they are succeeded by others still more disagreeable. In the latter case, the limb becomes considerably shorter than the sound one; its mobility, at the same time, being much impaired, or altogether destroyed, and permanent rotation either inwards or outwards, also taking place. Collections of matter now make their appearance, most frequently in the outer wall of the Hip, but occasionally in the groin and Hip. In some few instances, but very rarely, the fluid of these abscesses is absorbed, but the ordinary course which it follows, is to issue externally through openings formed by ulceration, or artificially by surgeons. The patient then, after a tedious illness, becomes hectic and dies, or recovers with a stiff joint, and wasted useless limb."

As this disease is generally pretty far advanced before it is discovered, but little can be done for it the way of domestic treatment; a surgeon should be consulted: as a general rule, counter-irritants in the first stages, such as blisters and setons, with a leech or two, if the swelling and inflammation accompanied with pain, is great; afterwards the same treatment as that prescribed under the head *Abscesses*.

Besides the scrofulous affection above described, the Hip Joint is also liable to *Dislocations* and chronic *Rheumatism* (both of which see).

**HIPS.** The ripe fruit of the *Rosa Canina*, or Dog Rose; it is used medicinally, in the form of a confection, but chiefly as a vehicle



for other remedies; by itself it is pleasant and acidulous, and may be taken by persons suffering from the thirst caused by fever. See *Dog Rose*.

**HIPPURUS** (Greek *ippos*, a horse; and *oura*, a tail). The final division of the spinal marrow is so called; it is also named *Cauda equina*, the Latin for horse's tail (see



*Spine*). This name is also attached to a genus of plants, of which the Mare's Tail, *H. Vulgaris*, is a familiar example. We find the prefix *Hippo*, a horse, attached to

several scientific terms, as *Hippomanes*, a humour in mares, anciently an ingredient in philtres or charms. *Hippuric Acid* is an acid obtained from the urine of horses; it is somewhat analagous in character to Benzoic Acid. The prefix is, in some cases, Grecian, denoting large size, as *Hippo Castanum*, the Horse Chestnut; and *Hippo Selinum*, the Horse Radish (which see).

**HIPPOCRAS.** A kind of cordial or spiced wine, to which we find frequent allusions in old writers; it was made by macerating 1 ounce of Cinnamon,  $\frac{1}{2}$  an ounce each of Cloves, Nutmeg, Mace, Ginger, Cardamums; and  $\frac{1}{4}$  of an ounce of Canella Bark, in 3 pints each of Madeira and Canary wines for about seven days; then strain, and add  $\frac{1}{4}$  of a pound of Refined Sugar. As a cordial for aged and weakly persons in whom there is no inflammatory tendency, something like this may be useful.

**HIRCINE** (Greek *hircus*, a goat). A substance found in the fat of the goat and sheep, yielding by saporification the *Hircic Acid*, which, according to Chevreul, forms salt in combination with chlorine.

**HIRSUTIES** (Latin *hirsutus*, shaggy). Applied to a superfluous growth of hair (which see).

**HIRUDO MEDICINALIS.** Latin for the medicinal leech, named by the Romans *haurio*, to draw or suck up, as expressive of its well-known peculiar action. See *Leech*.

**HIVES.** The popular name in the north of England, and in some parts of Scotland, for a kind of chicken-pox, called by Willan *Varicelli globularis*.

**HOARHOUND or HOREHOUND** (sometimes called Gipsywort). The name is Saxon, *hara hune*, white hune, hue, or colour. This is a common native plant remarkable for the white down which covers the stem and leaves, and gives it a hoary appearance. Its botanical name is *Marrubium Vulgaris*; it has demulcent properties, which render it useful in chronic coughs, for which it is a common domestic remedy, being generally taken in the form of Tea, prepared by infusing an ounce of the fresh leaves in a pint of boiling water for an hour; then strain and sweeten: take a wineglassful occasionally, adding at bedtime 30 drops of paregoric or 5 drops of laudanum.

*Syrup of Horehound* is made by boiling 1 pound of Lump Sugar with the same quantity of a strong decoction of the leaves of the plant, until it assumes the proper consistency; and *Candied Horehound*, by evaporating the syrup until it becomes thick enough, on cooling, to eat as a lozenge. (See cut in next column).



**HOFFMANN'S ANODYNE LIQUOR or SOLUTION.** This is the *Spiritus Etheris Sulphurici Compositus* of the Pharmacopœias, whose component parts are Etherial Oil 2 drachms, and Sulphuric Ether 1 pound; it is a good antispasmodic. See *Ether*.

**HOLLY, HOLM or HULM** (formerly called Holy plant). Name probably a corruption





of holy; botanical name *Ilex Aquifolium* belongs to the natural order *Aquifoliaceæ* the only British member of the genus *Ilex*; has several varieties, all possessing the same medical properties; the leaves are bitter, mucous, and astringent, having an austere taste; they were formerly used as a diaphoretic, and an infusion of them was given in catarrh, gout, plenrisy, and small-pox. In France, a few years since, they obtained a great reputation as a febrifuge, being equal, it was said, to Peruvian Bark, their virtue depending on a bitter principle called *Niein*. The berries of this plant are powerfully purgative, 10 or 12 being generally sufficient to act on the bowels; they also act as an emetic and diuretic: the expressed juice is said to be beneficial in jaundice. From the inner bark the viscous substance called bird lime is prepared; the wood, which is hard, white, and fine grained, is much used in turning and cabinet work.

*Knee Holly* is the Butcher's Broom, of the genus *Ruscus*, (which see).

*Sea Holly*, the Eryngo, (which see).

*The Hollyhock*, one of the greatest ornaments of gardens, called in botanical language *Althæa rosea*, has flowers which are slightly astringent, and yields a blue dye, said to be equal to indigo. (See *Mallows*).

**HOMBERG'S PHOSPHORUS.** Ignited Muriate of Lime, sometimes used as a caustic. From the same source, we have also *Hombert's Pyrophorus* (Greek *pyros*, fire, and *phero*, to bring); a mixture of Alum and Brown Sugar, which ignites on exposure to the air. A compound of 3 parts of Lamp-black, 4 of Burnt Alum, and 8 of Carbonate of Potash, will do the same. *Hombert's Sedative Solution*, is simply Boracic Acid.

**HOMOGENEOUS** (Greek *omoios*, like, *genos* kind). Applied to substances made up of parts possessing the same properties; its opposite is heterogeneous.

**HOME SICKNESS** (sometimes called *Nostalγια*). Is a peculiar affection of the mind to which exiles from their native land are subject; it especially affects the inhabitants of mountainous countries, and of these, has been noticed in the Swiss and the Scotch more than any others. It consists in a vehement and uncontrollable desire to return to the old homes of childhood. The bodily health may be perfectly sound, the mind clear and vigorous, but this desire possesses it like a mania, and if it is not gratified there is melancholy, loss of sleep and appetite, and, finally, it is likely that organic disease will ensue, probably of the lungs or heart. Whatever brings forcibly to mind

old scenes and memories, is likely to excite this affection, but nothing so much as national melodies; hence, when Scotch or Swiss troops are stationed abroad, it has been found necessary to forbid the performance of such airs.

**HOMŒOPATHY** (Greek *omoios*, similar, *pathos* a disease). A mode or principle of treating diseases introduced by a German physician, named Hahnemann. It is founded on the supposition that a disease is curable by such medicines as would produce in a healthy person symptoms similar to those which characterize the disease to be treated. The contrary system, on which medical men generally act, is *Heteropathy* or *Allopathy* (which see).

It is not our purpose here to contend for or against the doctrines of this new school of pathology; it will be sufficient for us to give a brief statement of them, so that our readers may understand, as far as unprofessional readers can, the *rationale* of Hahnemann's mode of treatment. The homœopathic hypothesis appears to rest upon a triangular basis; and here are the three points of contact, which are called by those who profess belief in the system, the three general lines of nature:—1st, we have the assertion that *like cures like*; 2nd, that the healing properties of remedies increase by subdivision, trituration, and succession; therefore, 3rd, and as a consequence, it is proper to give infinitesimal doses of medicines in the treatment of disease. Upon this foundation is built up the whole system of Homœopathy, which has met with favour and adoption from a considerable number of men of education and ability, both in and out of the medical profession, and from a very large number of the uninstructed public at large. It is much pleasanter certainly to take medicine in infinitesimal doses, and in the form of minute globules made of sugar, than in the old nauseous mixture and powder, pill and draught fashion. There cannot be a doubt that, generally speaking, the human system has been over-physiced; and this has arisen, in a great measure, out of the practice of charging for medicines only, or chiefly, and not for the medical man's skill, and time, and trouble. People were not satisfied to pay a heavy bill for attendance, they must have so many mixtures, and draughts, and pills; so they had them, and swallowed them, or not, as the case might be; but, at all events, they obtained something tangible, as value received for their money. It appears to us that Homœopathy is something like a reactionary movement; we have gone from

overdosing to underdosing; and by-and-bye, no doubt, there will be an approximation of the two extremes, and matters will find their level upon the true basis of medical science. Most of the defenders of this system of treatment rest chiefly upon the first proposition above named—viz. that *like cures like*; and they say that the system might yet stand, even if infinitesimal doses were shown to be inert: if, as it is generally believed, they are so, what becomes of the second proposition, and how is the first to be proved? That like does *not* cure like in full doses, we have abundant evidence to show, and that if greatly reduced, it does not act at all, or only in an inappreciable degree, has also been proved by repeated experiments. Here are two of the legs upon which the tripod rests knocked away from under it; and the third, without the others, is useless. But we may observe that this law of *similia similibus* was first propounded by Hippocrates, yet it had never been applied but in exceptional cases, until Hahnemann adopted it as a general, if not a universal rule, and, finding that it would not work with the old full-dose system, he added to it the two other hypotheses of the increase of the potency of medicines by division, and the consequent utility of infinitesimal doses. We may also observe, that the Homœopaths of our day repudiate much of Hahnemann's doctrine, and are by no means strict in their observance of the rules of the system which they profess, for they not unfrequently resort to full doses in the treatment of active disease. Allopathists have never denied that the Hippocratic law held good in some few exceptional cases, and they feel themselves at liberty to employ it, when it seems desirable to do so; but that its general application is safe and effectual, about ninety-nine in each hundred members of the medical profession deny; this is a large proportion, and we should pause ere we disputed their verdict. They would gladly fall into this method of administering medicines if they dared; for it would be far more pleasant to their patients to take sugar globules and tasteless liquids, than the nauseous preparations which they deem it necessary to administer, and more agreeable to themselves.

**HONEY** (in Latin, *mel*). A vegetable juice collected by the Honey Bee (*Apis mellifica*). When quite pure, it consists of crystalized sugar, like that of the grape, and of uncrystalized syrup, like molasses. The less pure kinds contain an acid and a portion of wax. When mixed with vinegar, it forms *Oxymel*, (which see).

The taste and quality of Honey depends very much upon the flowers from which it is collected, some, which is the produce of deleterious plants, being even poisonous in its nature; it is not often so, however, in this country. As an article of diet, Honey is wholesome to most persons, but with some it causes acidity and griping: it has a slight tendency to relax the bowels, and may, therefore, be taken by those who are habitually costive, especially children. Pure Honey will be, when fresh, perfectly clear, and of a pale amber colour. It deepens with age, and, if good, settles into a solid mass, with a granulated structure. It is sometimes adulterated with flour, and this may always be suspected when it presents a very white and opaque appearance. This is a good vehicle for the administration of medicines; and there are several medical preparations into the composition of which it enters, beside the *Oxymels*, of which we shall speak under their proper head. There is an old preparation, called Egyptian Honey (*Mel Egyptiacum*), being a compound of Honey and Verdigris; it is chiefly used as an outward application in furriery. In the modern Pharmacopœias we have the Honey of Borax (*Mel Boracis*), an excellent application for the mouths of children affected by *Thrush* (which see). It is made by mixing 1 drachm of powdered Borax with 1 ounce of Honey, and applied with a camel-hair brush. Honey of Roses is made by infusing 4 ounces of Red Rose Leaves in 2½ pints of Boiling Water; let it stand for six hours, and then strain, and add 4 pounds of Honey; let the whole evaporate in a vapour bath, and let it remain until it is of the consistence of syrup: this is a good adjunct to astringent gurgles. To make Clarified Honey (*M. depuratum*), heat it in a water bath, and strain it, while hot, through flannel. To prepare Honey Soap, which is very softening to the skin, and agreeable to use, take 2 pounds of the best Yellow or Curd Soap, cut it into thin slices, and put it into a vessel surrounded by water, which can be kept to a boiling heat; here it will quickly melt; when it has done so, add a quarter of a pound of Palm Oil, the same of Honey, and about a drachm of Oil of Cinnamon; boil the whole together for six or eight minutes; pour out upon a slab, where it can be made up into balls or cakes for use.

It has been observed that the Honey made in mountainous countries is more highly flavoured than that on low grounds, and that the Honey made in the spring is better than the summer produce, and that again than



the autumn. There is a preference given to that collected by young swarms, which is called Virgin Honey. The purest and choicest is that which is merely suffered to run out of the combs into the vessel set to catch it; but the coarser and deeper coloured kind is obtained by pressure from the combs of every sort, frequently after the other has been taken. The combs are broken up, and heated with a little water in basins or pots, being kept constantly stirred; they are then put into bags of linen cloth, and subjected to pressure in a press, or between two boards.

**HOOFS OF ANIMALS.** Are formed of a substance consisting of coagulated albumen



and gelatine, identical in its composition with *Horn*, (which see).

**HOOK-LIKE HAMULAR.** A designation of the small curved process of the sphenoid bone, sometimes called *Pterygoid* (which see), also *Skull*.

**HOOPING COUGH.** Sometimes called Chin Cough, query Chine Cough, or Kink Cough. In France it is generally termed *Coqueluche*; in Germany, *Keuchhusten*, or *Stiekhusten*; in Scotland, *Kinkhoust*. By Willis it was termed *Tussis convulsiva*, and by Hoffman, *Tussis ferina*, and by Sydenham, *Pertussis*. This well-known disease is chiefly, but not wholly confined to the stages of infancy, and it occurs but once in a life-time. It may be described as a spasmodic catarrh, and its severity varies greatly; sometimes being so mild as to be scarcely known from a common cough, at others, exhibiting the most distressing symptoms,

and frequently causing death by its violent and exhausting paroxysms.

The first symptoms of this cough are those of an ordinary cold; there is probably restlessness and slight fever, with irritation in the bronchial passages; this goes on gradually increasing in intensity for a week or ten days, and then it begins to assume the spasmodic character: at first the paroxysms are slight, and of short duration, with a scarcely perceptible "hoop," but soon they become more frequent and severe; a succession of violent expulsive coughs is followed by a long-drawn inspiration, in the course of which the peculiar sound which gives a name to the disease is emitted; again come the coughs, and again the inspiration, following each other in quick succession, until the sufferer, whose starting eyes, livid face, swollen veins, and clutching hands, attest the violence of the struggle for breath, is relieved by an expectoration of phlegm resembling the white of an egg, or by vomiting. When the paroxysm is over, the child generally resumes its play, or other occupation, and frequently complains of being hungry. As the disease proceeds, the matter expectorated becomes thicker, and is more easily got rid of, and this is a sign of favourable progress: the spasmodic paroxysms become less frequent and violent, and gradually cease altogether; but the changes here indicated may extend over a month or six months, according to circumstances, the season of the year having much influence in hastening or retarding them; summer being, of course, the most favourable time. It is a common impression that, at whatever time of year an attack of Hooping Cough commences, it will not end until May; this is simply because of the change in the weather which generally takes place in or about the course of that month. With a strong, healthy child (when proper care is taken), there is little to apprehend from this disease, provided it be not complicated with others, such as inflammation of the lungs, or any head affection producing convulsions; it then proves a most dangerous malady, and is fatal to many. With children of a full habit, the fits of coughing often cause bleeding at the nose, but this should not be viewed with alarm, as it relieves the vessels of the brain, and is likely to prevent worse consequences.

To weakly children Hooping Cough is a very serious malady—to all it is frequently a sore trial, but to them it is especially so; therefore, great care should be taken not to expose them to the danger of catching it; That it is contagious there can be no doubt.



and although some parents think lightly of it, and imagining their children must have it, at one time or another, deem that it matters little when, and therefore, take no pains to protect them against it; yet we would impress upon all our readers, who may have the care of infants, that a heavy responsibility lies at their door. It is by no means certain that a child will have this disease; we have known many persons who have reached a good old age and never contracted it: and it is folly and wickedness, needlessly, to expose those placed under our care to certain danger.

Like fever, Hooping Cough has a course to run, which no remedies, with which we are at present acquainted, will shorten; the severity of the symptoms may be somewhat mitigated, and we may, by watching the course of the disease, and by use of the proper means, often prevent those complications which render it dangerous, and this brings us to the consideration of the proper mode of

*Treatment.*—The first efforts should be directed to check any tendency to inflammation which may show itself; to palliate urgent symptoms, and stop the spasm which is so distressing a feature of the case. To this end, the diet must be of the simplest kind, consisting for the most part of milk and farinaceous puddings; if animal food, it must not be solid, but in the form of Broth or Beef-tea; roasted Apples are good; and, for drinks, Milk and Water, Barley-water, Weak Tea, or Whey. Care must be taken to keep the bowels open with some gentle aperient, such as Rhubarb and Magnesia, with now and then a grain of Calomel or Compound Julep Powder, if something stronger is required. An emetic should be given about twice a week, to get rid of the phlegm—it may be Ipecacuanha Wine or the Powder. To relieve the cough, the following mixture will be found effective:—Ipecacuanha Powder, 10 grains; Bicarbonate of Potash, 1 drachm; Liquor of Acetate of Ammonia, 2 ounces; Essence of Cinnamon, 8 drops; Water, 6½ ounces: Dose, a tablespoonful about every four hours. 20 drops of Laudanum, or 1 drachm of Tincture of Henbane may be added if the cough is very troublesome, but the former is objectionable if the brain is at all affected.

For night restlessness, 2 or 3 grains of Dover's Powders, taken at bed-time, is good; this is the dose for a child of three years old. Mustard Poultices to the throat, the chest, and between the shoulders, are often found beneficial; so is an opiate liniment composed of Compound Camphor and Soap

Liniment, of each 6 drachms, and 4 drachms of Laudanum. *Roche's Embrocation* is a favourite application, and a very good one; it is composed as follows:—Oil of Amber and of Cloves, of each ½ an ounce; Oil of Olives, 1 ounce; a little Laudanum is, perhaps an improvement. This may be rubbed on the belly when it is sore from coughing. Difficulty of breathing may be sometimes relieved by the vapour of Ether or Turpentine diffused through the apartment. In the latter stages of the disease, tonics are generally advisable. Steel Wine, about 20 drops, with 2 grains of Sesquicarbonate of Ammonia, and 5 drops of Tincture of Conium, in a tablespoonful of Cinnamon Water, sweetened with Syrup, is a good form; but a change of air, with a return to a generous diet, are the most effectual means of restoration to health and strength.

Squinting, stupor, and convulsions are symptomatic of mischief in the brain; in this case leeches to the temples, and small and frequently repeated doses of Calomel and James's Powder should be resorted to. Fever, and great difficulty of breathing, not only during the fits of coughing, but between them, indicate inflammation in the chest, on which a blister should be put, after the application of two or three leeches. In this case, the rule must be low diet, with febrifuge medicines, such as Acetate of Ammonia, Tartarized Antimony in Camphor Mixture, and Calomel and James's Powders. Some medical practitioners have recommended the application of Lunar Caustic to the glottis in this disease, but no unprofessional person should attempt this. Others have found the Tincture of artificial Musk serviceable, beginning with 3 or 4 minim doses at the outset, and going up to 10 or 12 minims, in Barley Water, two or three times a day. Diluted Nitric Acid we have frequently administered both to children and adults, with decidedly beneficial results; from 5 to 10 drops in plain or Cinnamon Water, sweetened; it may be given very frequently; a little Ipecacuanha Wine, and Tincture of Henbane or Henlock, about 5 drops, may be added to each dose. Cochineal and Salts of Tartar is the old popular remedy, and it is, no doubt, sometimes useful, but we would rather not depend on it.

Dr. Golding Bird recommends the following mixture:—Alum, 25 grains; Extract of Henbane, 12 grains, Syrup of Poppies, 2 drachms; Dill Water, sufficient to make 3 ounces: give a dessertspoonful every six hours.

*Hors.* The strobiles or female flowers of the familiar plant which botanists call

*Humulus Lupulus*, commonly used to impart a bitter flavour to ale and beer. They contain several elements of activity; thus the bitter principle is tonic, the aromatic warm and stimulating; they are also astringent and slightly anodyne, so that a pillow stuffed with them is considered to promote sleep, and a fomentation to allay the pain and irritation of angry tumours. They yield an aromatic oil, and a substance



called *lupuline*, in which the bitter property resides, that is, the tannin, and to a considerable extent their peculiar aroma also. We find them in the Pharmacopœia in the form of Extract, Infusion, and Tincture, which we give in cases of gout and rheumatism, and diseases of the stomach, where other anodynes could not be taken. The dose of the Infusion is from  $\frac{1}{4}$  an ounce to 2 ounces; of the Extract, from 10 grains to 20; and of the Tincture, from  $\frac{1}{2}$  a drachm to 1 drachm; the second is made by infusing 1 ounce of the flowers in 2 pints of boiling water; and the third by macerating 6 ounces of the flowers in 2 pints of proof spirit. The highly-hopped Pale Ale or Bitter Beer is a good medicinal tonic, but its regular use for a lengthened period is not desirable, except in very warm climates. Heated in a flannel bag, Hops are a common remedy for toothache and neuralgic pains, and the young shoots of the plant are, in some places, eaten like asparagus, for which they form a tolerable substitute.

**HORDEOLUM.** The diminutive of *Hordeum*, is a term applied to a sty or small tumour of the eyelids, which is thought to resemble a barleycorn.

**HORDEUM DISTICHUM.** (See *Barley*.)

**HORN POCK.** Sometimes called *Crystalline Pock*, a variety of variola, in which the pimples suppurate imperfectly; they are ichorous or horny, and semi-transparent. See *Variola*.

**HORRIPILATIO** (Latin, *horreo* to dread, *pilatus* the hair). A sense of creeping, beginning at the head, as though the hair was standing on end, and spreading thence over the whole body; it is symptomatic of approaching fever.

**HORSE RADISH.** This well-known condiment is the root of the *Cochleria Armorica*, one of the scurvy-grass tribe of plants; it acts as a powerful stimulant whether taken or applied externally; a poultice of the scraped root may be used instead of a mustard plaister; its therapeutic effects are diuretic, emetic, and sudorific, as well as stimulant, and these are communicated partially to boiling water, but entirely to spirit. It is chiefly administered in paralytic affections and chronic rheumatism, the dose of the fresh root being from 1 to 2 drachms, scraped or shredded, as we take it with roast meat. The Compound Infusion is made by pouring on 1 ounce each of the shredded Root and of bruised Mustard Seeds, a pint of boiling Water, and letting it stand in a covered vessel for two hours, then strain, and add 1 ounce of the Compound Spirit of Horse Radish, which is prepared thus:—Mix 20 ounces of the shredded root, the same of dried Orange Peel, 5 drachms of bruised Nutmegs, and 1 gallon of Spirit with 2 pints of Water; then distil a gallon over a slow fire. This is given internally in dyspepsia, and is applied externally in paralysis, being rubbed into the skin. The dose is from 1 to 2 drachms, and that of the Infusion from 1 to 3 ounces, three times a day.

**HOSPITALS.** These are among the most merciful and useful public institutions which have been established for the benefit of the poorer classes. Our own land, and especially London, can boast of some of the noblest establishments of the kind which are to be found in the world. Some are general, and some especially intended for peculiar diseases. We cannot pretend to enter into a full description of these several benevolent institutions, nor even to enumerate them; but have introduced the subject here, in order that we might say a word or two upon the unfounded prejudices and fears, as to Hospital treatment, which exist in many minds, and often, we fear, prevent persons from availing themselves of the inestimable benefits which they offer. There-



the best medical and surgical skill can be obtained; there the most careful supervision; there the most appropriate and well regulated diet, and all the appliances which modern science furnishes; and it is folly to suppose that, as a rule, the patient is there treated other than carefully and tenderly. No doubt, nurses are sometimes cross and negligent; students not quite so decorous and thoughtful as they might be; and doctors, in the hurry of their overwhelming professional duties, short and sharp in their manners; but these are exceptions to the general rule, and should not be weighed in the balance for a moment against the gratuitous advantages offered to the sick and needy, who cannot obtain the food, the attention, and the skill so necessary to their cases at home. The following extract from Dickens' *Household Words*, in reference to a visit paid to St. George's Hospital, London, will serve to confirm the truth of our assertion, as to the kindness and consideration with which patients are generally treated at such establishments. The remarks apply but to one, but we quite believe it may be taken as a type of the class:—"A stranger's preconceived ideas of the sufferings of an Hospital are not at all borne out by the appearance of the patients generally: many of them are quietly reading the better-class cheap literature of the day; others are conversing round the ample fire. The little child with its leg in a splint is as merry as possible, with its bed covered with playthings. Everything that humanity can dictate, or to which art can minister, is supplied. The most eminent medical men, whose attendance sometimes the rich cannot purchase, watch the patient with all due art and skill; whilst carefully-trained nurses are at hand day and night to ease his tired limbs, or to sooth his racking pains."

That this is no overdrawn picture, all who have had anything to do with Hospital management can testify; and patients themselves, who have been partakers of these public benefits, should endeavour to remove the false impression, which prevails to a considerable extent, on this subject. Every good thing is liable to abuse; and these charities are, no doubt, sometimes misused and mismanaged, but not so commonly as is imagined. The supervision of those appointed to watch over them is too strict, and the public ear is too open, to permit of any long continuance of malpractices.

**HOSPITAL GANGRENE.** This is a combination of Humid Gangrene with phagedenic ulceration; it occurs in crowded hospitals, and is described under the head *Gangrene*.

**HOURL-GLASS CONTRACTION.** A transverse contraction of the uterus; so called because the organ assumes an irregular shape, something like an hour-glass.

**HOUSE.** How much the health of the community depends upon the situation, construction, and state of repair of the Houses which they inhabit, need scarcely, we think, in the present day of "Sanatory Commissions" and "Health of Towns Associations," be insisted on; and yet, great as have been the improvements of late in the dwellings erected for men, there is much room for more, especially in those of the lower classes. We merely glance at this subject incidentally, for it is one into which we cannot fully enter, and we have already in our articles on *Air*, *Drainage*, &c., furnished our readers with some hints thereon. Let us however briefly and forcibly impress upon those who are about to build a House, how important a consideration is the site which it is to occupy, as regards the health of its future inmates. Unfortunately, in the competition which is going on between builders, as among all other speculators, this matter is but little considered; every eligible plot of ground that can be obtained, is soon covered with bricks and mortar; no matter whether it lies low or high, what may be the nature of the subsoil, or the surrounding locality, so that it is within an easy distance of some great centre of activity, or offers some facilities for pleasure or business, the two great objects of life, as it is generally considered. To those who have the power of choice, we would say—never build a House in a low or damp locality; choose a dry gravelly soil if possible; if on a gentle declivity, so much the better, for here the natural drainage will be good; and let it be rather on the south or western slope of a hill, than on the north or eastern. Ascertain that the springs are pure and abundant, and if possible, secure sufficient ground to have your house isolated; go not too near chemical factories, or other sources of pollution, and build your house strongly and substantially, with walls of sufficient thickness to resist the attacks of all weather; and good timber and slated roofs, at a sufficient angle of declivity to prevent the snow or wet remaining lodged thereon. Let the rooms be lofty, well lighted and ventilated: it is astonishing what a good effect plenty of light has upon the health, and *vice versa*, how it helps to preserve "a cheerful mind in a sound body." Therefore, do not enclose your house with trees, to shut out the sunshine, and hide the prospect; we all love trees, as we ought to love them, for they are

among God's best gifts to man; but we should not have them too close to our dwellings. Have plenty of windows, then, but let them open mostly to the south and west; and well-constructed chimneys, that will not smoke—for smoky chimneys spoil both health and temper; (for more on this head see *Fire Place*).

Pity it is that the House of the poor man, should, as a rule, be so ill adapted for comfort, cleanliness, or health. Squalid, ill-lighted, badly ventilated, insufficiently drained, and crowded together in close low neighbourhoods, are the homes of our labouring population generally; and where this is the case, disease and immorality will prevail to a frightful extent. There is less occasion for this huddling together of multitudes now, than there was formerly, because distance from the place of employment is scarcely a consideration; a man may go from the factory or the workshop, to his home some miles away, in less time than it formerly took him to traverse a tithe of the distance; and there seems no reason why plots of ground contiguous to the railway lines should not be covered with neat little cottages, or model lodging houses, where the toilers and moilers of society might find all the comforts and enjoyments of home when their day's work is done. There can be no doubt that much of the well being of the state—the health of the whole body politic, as well as of its individual members, depends greatly upon the suitableness of the Houses of the land.

**HOUSE LEEK.** The *Sempervivum Lectorum* of botanists, a plant of the natural order *Crassulaceæ*: it contains malic acid, in combination with lime, and is considered cooling, astringent, and diuretic; its thick succulent leaves are sometimes applied to burns, stings of insects, ulcers, and inflammatory swellings; also, to corns and bunions with good effect. (See cut in opposite column).

**HOUSEMAID'S KNEE.** A formation of matter in the fore-part above the kneecap, in consequence of inflammation set up by much pressure upon the part. Servants who are accustomed to kneel to their scrubbing and cleaning, and thatchers, who press the knee upon the ladder when at work, are especially liable to this affection, which is sometimes called a *White Swelling* (which see) and *Knee*.

**HOWARD'S HYDRO SUBLIMATE.** A patent Calomel, made by exposing the submuriate of mercury, in the act of sublimation, to aqueous vapour, and receiving it in water; the chief advantage of this is, that it cannot contain any corrosive sublimate; it is



lighter than the common calomel in the proportion of three to five. In the French Codex there is a similar preparation, which is known as *Jewel's Hydro-sublimate*. See *Mercury*.

**HUILE ACOUSTIQUE.** The French name of a nostrum for the ear, made by boiling 1 drachm each of Garlic, Bay-leaves, and Oregall, in 2 ounces of Olive Oil, for a quarter of an hour; strain and bottle for use. It is stimulant, and slightly astringent, and may be serviceable in some cases of Ear affection.

**HUMAN FAT** (Latin, *adeps hominis*). This is said to be sometimes used in the north of Europe in the preparation of ointments; it resembles lard in its appearance and properties. See *Adeps*.

**HUMECTANTIA** (Latin *humecto*, to moisten). A term sometimes applied to moistening and softening medicines or applications.

**HUMERUS.** Latin for the shoulder. Hence we have *Humeral*, applied to nerves, arteries, &c., belonging to the shoulder. We give a cut of the bone known to anatomists as the Humerus; it is long, and therefore divisible into a shaft and two extremities, as here represented; this cut shows the right side of the Humerus, on its anterior surface:—1. is the *shaft* of the bone; 2, the *head*, immediately below the base of which is the constriction called the *anatomical neck*, so named in contradistinction to the true neck, from being the seat of the accident called by surgeons, "fracture of the



neck of the Humerus" 3; the greater and lesser *tuberosities* are marked by 4 and 5; between them is a vertical furrow, called the *bicipital groove*, 6, which lodges and



protects the long tendons of the biceps; 7 and 8, are the *anterior* and *posterior* ridges of this groove; 9 is the rough surface into which the large triangular muscle, which forms the convexity of the shoulder, and is called the *deltoid*, is inserted; 10 is the opening called the *nutritious foramen*; 11, the *eminencia capitalis*, a rounded protuberance which articulates with the cup-shaped depression at the head of the radius; 12 is the *trochlea*, a concave surface which articulates with the ulna; projecting beyond this on either side are the *external* and *internal condyles*, 13 and 14, the two ridges of which are marked by 15 and 16; the *condyles* are rounded eminences, and running upwards from these, along the borders of the bone, are the condyloid ridges, of which the external is the most prominent, although, from the position of the bone in the diagram, the internal one, 16, is most plainly seen; 17 is the fossa for the coronoid process of the ulna, a depression into which it is re-

ceived during the flexion of the forearm; (for a cut of which, see *Fracture*).

**HUMIC ACID** (Latin *humus*, earth). An acid discovered in loam and peat earth, and in most vegetable barks: it is sometimes called *Ulmic Acid*, and its basis is termed *Humine*, or *Ulmine*.

**HUMOR** (Latin *humco*, to be moist, from *humus* the ground). Applied to the aqueous parts of the body, and sometimes to the liquid excretions, generally; but especially those of the skin. The Humours of the Eye are of three distinct kinds: 1st, the *aqueous* or watery; 2nd, the *crystalline*; and 3rd, the *vitreous* or glassy. The two first contain about 80 per cent. of water, with albumen, muriate and acetate of soda, pure soda, and mineral waters; the third contains also 36 per cent. of a peculiar matter, like albumen. See *Eye*.

**HUMORAL PATHOLOGY**. Is a system of medicine which attributes all diseases to morbid changes in the humours or fluid parts of the body, and altogether ignores the influence of the solids.

**HUMORIC**. This is a term applied by M. Piorry to a peculiar sound produced by percussion in the stomach. When this organ contains much air or liquid, it resembles what Laennec describes as the metallic tinkling. See *Percussion*.

**HUMULUS LUPULUS**. The scientific name for the *Hop* (which see).

**HUNGER**. When we desire food we are said to be hungry, and this is an instinctive sensation, of which we are conscious when the stomach is empty, and there is a cessation in that constant supply of nutrition and stimulus which the whole system requires to maintain a state of healthful activity. "Whatever," says Dr. Alison, "be the conditions under which the nerves of the stomach become the seat of these sensations (of hunger) it is certain that, in the healthy state, they are a true index, not only to the state of the stomach, but to the immediate wants of the system at large." Not always, however, do these nerves—these sentries of the brain—convey true, or any information, they may sleep at their posts, deadened by narcotics; or they may be surprised and overpowered by strong mental emotion, such as fear, joy, grief: they may be seized and pinioned by a strong will, evoked by some absorbing desire, or pursuit of the mind. Thus philosophers like Sir Isaac Newton, deep in experimental research, forget that they have not dined; thus poets and lovers are said to live upon air; and thus those who fly from a threatened danger; who with indomitable energy strive to overcome

mighty obstacles; or who, with excited passions, fiercely struggle on the battle field, feel not the want of food until the desire is accomplished, the work concluded, or they sink exhausted by their efforts. Sometimes the sentries may give a false alarm, proclaiming a want when want there is none, and simulating hunger: sometimes they are too credulous and easily satisfied, saying we have it, when they have it not; thus we meet with persons who are always hungry, even directly after taking food, and we know that hunger may be for a time appeased by swallowing substances that cannot be digested, and which, therefore afford no nutriment to the system: all these conditions, however, are incompatible with sound health, in which state, at periods occurring with tolerable regularity, the sensation of Hunger will be felt. How, and when this should be satisfied, our readers will find fully set forth under the head *Food*, to which, and also to those on *Aliment*, *Appetite*, and *Diet*, we refer them, with the wish expressed by Shakspeare—

“May good digestion wait on appetite,  
And health on both.”

**HYALOIDES** (Greek *yalos*, glass, and *eidōs*, likeness). The membrane which contains the vitreous humour of the *Eye* (which see).

**HYBERNATION** (Latin *hyberna*, from *hyems*, winter). The condition of torpor in which the cold season is passed by some animals, such as the dormouse, hedge-hog, &c. Bats, also, do this; and not only do they sleep through the winter, but they also remain in a partially torpid state during the day, and only resume their activity as evening approaches, and this is called *Diurnation*.

**HYBOSIS** (Greek *ybos*, curved). The ancient Greek name for lateral curvature of the *Spine* (which see); it has been called by Dr. Good, *Rachybia*, and by Swediaur, *Hyboma Scoliosis*.

**HYDATID** (Greek *ydates*, a vesicle, from *ydor*). Any pellucid cyst which contains a transparent fluid developed in a tissue or cavity of the human body, &c. We now generally apply the term to an order of intestinal worms of which there are several genera, as follows:—1. *H. acephalocystis*, the Headless Hyatid; 2. *H. cœnurus*, a form in which several Hyatids are grouped together, having but the tail; *H. eysticercus*, the bladder-tailed Hyatid; *H. ditæchyeros*, the Hyatid with a rough, two-forked horn; *H. echinocœcus*, the round, rough Hyatid; *H. polycœphalus*, the many-headed Hyatid. There is also a white en-

cysted body considered by some as a new genus: Raspail called it the *ovaliger* of the joint of the wrist. See *Worms*.

**HYDERUS** (Greek *yderios*), literally water flux. The Greek name for *Diabetis* (which see); it has been also called Urinal Dropsy, Urinary Diarrhœa, and Dipsacus, from the thirst which accompanies it.

**HYDRACIDS** (Greek *ydor*). A class of acid compounds into which hydrogen enters as the acidifying principle, such are *Hydro-chloric* (Muriatic) *Acid*, the salts of which are called *Muriates* or *Hydrochlorates*; *Hydro-bromic Acid*, the salts of which are *Hydro-bromates*; *Hydr-iodic Acid*, salts *Hydri-odates*; *Hydro-fluoric Acid*, salts *Hydro-fluates*; *Hydro-sulphuric* (sulphuretted hydrogen), salts *Hydro-sulphates*; *Hydro-cyanic*, salts *Hydro-cyanites*, formerly called *Prussiates*, and several others.

**HYDRAGOGUES** (Greek *ydor*, and *ago* to expel). Medicines which have the power of increasing the secretions and excretions of the body, and of producing watery evacuations. See *Cathartics*.

**HYDRAMNIOS** (Greek *ydor*, and *amnius*). A morbid accumulation of the *liquor amnii* (which see).

**HYDRARGYRIA** (Greek *ydor*, and *argyros* silver). A kind of hot eruption arising from the irritation caused in the system by the administration of mercury. It is sometimes called *Erythema Mercuriale*, and sometimes *Eczema rubrum*.

**HYDRARGYRUM** (in Greek *ydrargyros*, water-silver). A name given to quicksilver on account of its fluidity and colour: this is the *argentum vivum* of old writers. See *Mercury*.

**HYDRATES**. Chemical compounds of solid bodies and water, which still, however, retain their solid form: these are also termed *Hydroxures*, and *Hydro-oxides*: if water is not a constituent, the term used is *Anhydrous* (which see). Dr. Thompson gives the following list of the Hydrates. 1. *Sulphur*, which is found native in this state; but most commonly precipitated sulphur is what we understand by the term: 2. *Metallic Oxides*, which are in the form of powder, and generally of an intense colour: 3. *Earthy Hydrates*, which are generally crystallized, although we sometimes meet with them as powders: 4. *Alkaline Hydrates*; crystallized alkalis: 5. *Acid Hydrates*, which are crystallized acids: 6. *Saline Hydrates*, any saline preparations, whether in the form of crystals, solid masses, or powders: 7. *Hydrates of Hydro-sulphurets*, which are the crystallized Hydro-sulphurets: 8. Soaps, in which there is always a considerable pro-



portion of water : 9. Tannin, with several other animal and vegetable solids.

**HYDRATHRUS** (Greek *ydor*, water, and *arthron*, a joint). This is the *spina ventosa* of the Arabian physicians, called by modern surgeons, *White Swelling* (which see), also *Knee*.

**HYDRO**. This Greek prefix forms the commencement of many medical terms; it may mean the presence of water, as *Hydrin*, a watery pustule, or *Hydrocele*, the original signification of which was a watery tumour; but it has now three several significations; *H. congenita*, Congenital Hydrocele, a collection of water in the *tunica vaginalis*, with a communication between the cavity of this membrane and that of the *Peritoneum*, (which see), and *Vagina*; *H. œdematodes*, an anasarcous tumour of the scrotum, called by French writers, Hydrocele by infiltration, (see *Scrotum*); *H.* of the *spermatic chord*, which may be either infused or encysted, in the first case involving the surrounding cellular tissue, in the other, leaving this unaffected; *H. spinalis*; (see *Spina bifida*); *H. tunice vaginalis testis*, Hydrocele of the vaginal coat, (see *H. sarcocele*): *Hydrocephalus*, more properly *Hydrin-cephalus*; this may be either *external* or *internal*, that is between the membranes, or between the ventricles, (see *Brain*); *Hydro-cystis*, an encysted *Dropsy* (which see); *Hydromancy* (Greek *manteia*, prophecy), an ancient superstition respecting the divining or prophesying power of certain springs; for the practice of resorting to which for superstitious purposes, we probably owe the discovery of the medicinal virtues of mineral waters generally; *Hydromel*, a name for honey diluted with water; when fermented it becomes *mead*, or *metheglin* wine, the *Hydromel vinosum* of old writers, who also spoke of it as *Aqua mulsa* and *Meliceratium*; *Hydrometer*, an instrument for measuring the gravity of fluids; *Hydrometra*, Dropsy of the uterus, sometimes called *Hydrops uteri*, (see *Uterus*); *Hydro-pericardium*, Dropsy of the *Pericardium*, (which see); *Hydro-ophthalmia*, Dropsy of the *Eye* (which see); this may affect the cavities containing the aqueous humours, in which case we call it *Hydrops camerae anterioris*; or the vituous humour, when it is *H. corporis vitrei*; or it may be an aqueous enlargement of the whole organ known as *Hydrophthalmia*, or *Hydrops oculi mixtus*, or *Buphthalmus*, meaning Ox-eye; *Hydro-pica* is a name for medicines which relieve or cure *Dropsy* (which see); *H. pleuritis* is acute or chronic inflammation of the pleura, attended with effusion, (see *Pleur-*

*ritis*); *H. rachitis* is dropsy of the spine (which see), which may be either congenital, in this case it is *Spina bifida*; or analogous to *Hydrin-cephalus*; *H. sarcocele*, Dropsy of the tunica vaginalis; *H. thorax*, Dropsy of the chest.

Then we have this prefix in chemistry indicating the presence of hydrogen, as in *Hydro-sulphuretted* compounds of sulphuretted hydrogen with the salifiable bases, as *Kermes mineral* (which see); *H. thionie* (Greek, *thion*, sulphur) a name given by some German chemists to sulphuretted hydrogen, or the Hydro-sulphuric acid of M. Guy Lussae; *H. urets*, compounds of hydrogen with metallic bases. See *Hydrogen*.

**HYDROCYANIC ACID**, commonly called Prussic acid. See *Acids*.

**HYDROGEN** (Greek, *ydor* water, and *gennao* to produce). A Gas so called from its entering largely into the composition of water; it was formerly called *Phlogiston* or *Phlogisticated air*, sometimes *Inflammable air*: about 1 part of this gas to 2 of oxygen forms water; that is by volume; by weight it is 1 part of the former with 8 parts of the latter. 3 parts of this gas with 1 of nitrogen, by measure, forms Ammonia, or as it is sometimes called Ammoniacal gas or Volatile Alkali, or according to old writers Alkaline air. In combination with carbon, in the proportion of 2 parts to 1, it forms what is variously called Light Carburetted Hydrogen, Heavy Inflammable air, Gas of Marshes, Hydro-Carburet, Proto-Carburet of Hydrogen, and Bi-Hydroguret of Carbon. When the two gases are in equal proportions we have Bi-Per-Carburetted Hydrogen, Olefiant Gas, or Hydroguret of Carbon. In combination with Chlorine this gas forms Hydro-Carburet of Chlorine, or Chloric Ether; with Iodine it forms Hydro-Carburet of Iodine, or Hydro-iodide of Carbon; and with Bromine it forms Hydro-Carburet of Bromine. It also enters into the composition of Ether, Naptha, &c., and combines with Selenium, Phosphorus, Arsenic, Tellurium, Potassium, and Xanthogen. This is the least ponderable of all gasses, and the most inflammable; although it is itself incapable of supporting combustion: if a lighted candle be put into a vessel containing Hydrogen, the gas itself will explode, and the candle will be extinguished; no animals can breathe it and live, and yet we see that combined with another gas it forms that great necessity of animal existence, water. For further particulars on this head see *Gas*.

**HYDRON CEPHALOID** (Greek *ydor*, and



*enkephalos*, the brain, and *eidōs*, likeness), Affections arising from intestinal disorder, and exhaustion; so called because in their symptoms they resemble *Hydrocephalus* (which see).

**HYDROPATHY.** This, as the word implies, is the treatment of disease by the use of water, both externally and internally, according to the modes recommended by Priessnitz, the introducer of the system, against which nothing can be said so long as it is confined within judicious bounds. But, like most of the modern pathies, which have, for a time, become the rage, too much has been claimed for it, and a great deal of mischief has resulted from its indiscriminate application. There can be no doubt that, for certain diseases, and under certain conditions of constitution, habit, and temperament, Hydropathy, is the very thing, and perhaps every thing, required; but most usually there is a dietary and medicinal course necessary to be combined with it. Wanting these adjuncts it has, in very many cases, signally failed; with them, as it is usually practiced, its success has been very marked, and Hydropathic establishments have been, and are, deservedly in great repute. Medical practitioners have, perhaps, too much neglected cold water as a curative agent, and depended too exclusively on drugs; it may be that one reason for this is that people are unwilling to pay for cold water, or advice how to use it; but are not so unwilling to pay for that same element when it is converted into medicine. Another reason undoubtedly is, the difficulty of properly carrying out a course of Hydropathic treatment under the ordinary circumstances of life. More personal superintendence is required than the medical man can give, more time than the patient can spare, and more conveniences than he or she possesses, or can well obtain. Hence the practice of Hydropathy is almost exclusively confined to those who specially profess it, and to the establishments built or fitted purposely for it, and certainly many truly wonderful cures have been performed there. The pity is that the expense renders them unavailable for the poorer classes—to many of whom they would prove of especial benefit.

There are three different modes by which this system is said to act, and experience and observation justifies the belief that such is the case: 1, The reduction of temperature, caused by the application of cold water, the use of which, for this purpose, is as old as medical science itself: 2, The healthy stimulus which it gives to the nerves, bracing them, and enabling them

to bear the changes of temperature especially incidental to our climate: 3, The production of a critical eruption which removes poisons that are either the result of disease, or which have been swallowed in the usual way: this, too, is no fresh fact in therapeutics; so that really Hydropathy is no new system. What Hahnemann did for Homœopathy, Priessnitz did for this kindred pathy; took the old foundations, and built thereon a superstructure of rules and prescriptions, adding, both for disguise and ornament, some fanciful theories, and then dignifying the whole by the name of a new system, and vaunting that it was sufficient of itself to cure all diseases that were curable; taking care, however, in the practice of it, to combine other modes of treatment where the above was likely to be insufficient.

Hydropathy, then, we find to be useful as an *antiphlogistic*, as a *tonic*, as a *critical remedial agent*: like Homœopathy it stands on a triangular basis; but its three points of support are sound, which is more than can be said for that system.

The processes commonly used, in the administration of the Water cure, are Baths, Compresses and Packings; the first of these in ordinary use, are of various degrees of temperature, ranging, in the majority of cases, between 50° to 60°, and sometimes going up to 70° or 80°; it is not uncommon for a patient to be transferred from a bath of one temperature to a bath of another; and it is sometimes, when the patient is sitting in a shallow, warm, or tepid bath, cold water is poured over the head and upper part of the body: much attention is paid to the exact degrees of temperature applied in these cases.

To dry the body, it is usual to employ a sheet, in which the patient is enveloped, in preference to towel rubbing, which exposes the parts, not under the process, to chilling evaporation. A certain regulated amount of exercise is enjoined both before and after. Of the baths there are a great variety; in some establishments the Shower and Douche Baths are chiefly used, in others only partially. Steam, Hot-air, and Vapour Baths are also much adopted.

*Compresses* are of various kinds; the most common is a piece of coarse linen saturated with cold water, applied to the skin, and covered over with dry cloths; the compress is re-moistened several times a-day, generally at the time of taking the bath. Sometimes a compress is worn all day, sometimes at night only; it may be over the greater part of the body, or only a certain portion, on the chest, or abdomen, or head, for which a wet cap is generally used.

There is also friction with wet towels applied, and what is called the Rubbing Sheet, standing or recumbent, and the Under Blanket Wet Friction. The Wet Sheet and Blanket Packing are the chief novelties in the system; they consist in folding the patient in the sheet or blanket, dipped in water and wrung out, and then covering him over with dry blankets; this is said to be equal to blood-letting in its power of reducing inflammation, and to act at once as an anodyne, a tonic, and an absorbent. No doubt can be entertained that it is an excellent antiphlogistic, and, as it may easily be used, we give directions for its application. Take all the coverings from a common bed, leaving only the mattress and a pillow; over these spread a couple of blankets and then the wet sheet, on which place the patient perfectly naked, and fold first the sheet, and then the blankets tightly round him, so that he is completely enveloped, all but his face; then heap on other blankets, and tuck them in tightly. If the heat-generating power of the body is not great, a feather bed may also be added to the covering; tuck a small towel or handkerchief under the chin, that the face may not be irritated by the blanket on which it rests, and allow the patient to be in this condition for any necessary length of time, which varies from a quarter of an hour to two or even three hours, allowing him to drink at intervals small quantities of cold water. When taken out of the packing, the body should be first well rubbed with wet towels, afterwards dried with a dry sheet, and, if able, he should then take a brisk walk; if not, he should be put into another bed, and well wrapped up.

It is in dyspepsia and hypochondriasis, neuralgic affections, and skin diseases, that Hydropathy has proved most advantageous; in the early stages of fever and inflammation it is also of great use: as it occasions considerable waste of the body, it is well suited for persons of full plethoric habits, those who are not so, ought, while under its influence, to take more nourishment than common. To weakly persons of a nervous temperament it is likely to prove a hazardous remedy, as they cannot bear the reduction of vital power which it causes. On the whole, we must confess, that it offers great advantages to those patients who are in circumstances to go through a regular Hydropathic course of treatment, especially if they have been what are generally called "free livers;" a plain diet, chiefly of milk, early hours of rising and retiring to rest, avoidance

of all stimulants, regular and sufficient exercise; these alone, without the good therapeutic effects of the bathing and rubbing, and active stimulating of the excretory organs, would prove highly beneficial. See *Baths, Water*.

**HYDROPHOBIA** (Greek for a dread of water). This is the well known canine or dog madness, whose chief symptoms are spasmodic contractions of the larynx, preventing the patient, although thirsty, from swallowing any kind of liquid; one of the most dreadful and fatal visitations that can affect humanity. It has been known to medical writers from the days of Hippocrates downwards, and described under a great variety of names, all having reference to the difficulty of swallowing, or to the horrible fear which possesses the patient, as expressed in the old names *aero-phobia* and *pantophobia*, dread of air, and dread of all things. It is generally distinguished as *Rabiosa*, with madness, and *sine rabie*, without madness. From Dr. Watson's "Lectures" we copy the following description of this fearful malady, which in man is produced by inoculation with the saliva of an animal, generally a dog, infected with it. When a person has been bitten by a rabid animal, the wound if treated in the ordinary manner will generally heal readily enough; but "after an uncertain interval, which lies for the most part between six weeks and eighteen months, the following *symptoms* begins to be noticeable. The patient experiences pain, or some uneasy or unnatural sensation, in the situation of the bite. If it becomes healed up, the scar tingles or aches, or feels cold or stiff, or numb; sometimes it becomes visibly red, swelled, or livid. The pain or uneasiness extends from the sore or scars towards the central parts of the body. Very soon after this renewal of local irritation,—within a few hours, perhaps—but certainly within a very few days—during which the patient feels ill and uncomfortable—the specific constitutional symptoms begin; he is hurried and irritable; speaks of pain and stiffness, perhaps about his neck and throat; unexpectedly he finds himself unable to swallow fluids, and every attempt to do so brings on a paroxysm of choking and sobbing, of a very distressful kind to behold; and this continues for two or three days till the patient dies exhausted. Generally, the disease when it once sets in, and shows the peculiar hydrophobic symptoms, runs but a short and fierce course. The nervous irritability becomes extreme. The peculiar paroxysms of choking spasm, and sobbing, are excited not only by attempts to swallow liquids,



but by the very sight or sound of them. Even the passage of a gust of wind across the face, the waving of a polished surface, as of a mirror, before the eyes; the crawling of an insect over the skin is sufficient to excite irritation, and the peculiar strangling about the fauces in a hydrophobic patient. Death occasionally takes place within twenty-four hours after the commencement of the specific symptoms. But commonly it happens in the second or third day."

Sometimes, however, as we gather from this and other authorities, the patient may linger on until the seventh, or even eighth day, and the severity of the symptoms may so far remit as to allow of his swallowing liquids; but there is no well authenticated case of a recovery after this disease had decidedly manifested itself, although there is no lack of pretended remedies for Hydrophobia.

"We are sure," says Dr. Watson, "that the disease, by the inoculation of which Hydrophobia may be produced in man, is common in the dog, and that it has been communicated by the fox, the wolf, the jackal, and the cat." And he quotes the late Mr. Youatt, who probably saw more of the disease both in man and the lower animals, than any other person—at all events in this country, to the effect that the saliva of the badger, the horse, and the human being, have undoubtedly produced it: some affirm that it has been propagated even by the hen and the duck. Certain it is that all animals, even fowls, are susceptible of the disease, when bitten by a rabid dog.

The above quoted authorities do not believe that the malady is communicable by the infected saliva through an unbroken cuticle; to render it so there must be some abrasion or breach of surface; it is inferred that mere contact with mucous membranes is sufficient for its propagation, from the fact that persons who unknowingly applied their lips to objects in which the virus has remained and dried, have taken the disease. It has been said that Hydrophobia has resulted from the mere scratch of a cat, if so, the probability is that the creature's talons had become imbued with the venom when the paw was put to the mouth, as it frequently would be if that part felt hot or uneasy. The knowledge that the saliva of a human being affected with this disease is infectious, should teach us, while ministering to such an unhappy fellow-creature, and relieving his sufferings by all means in our power, to do so with due caution; the more especially as such patients are sometimes extremely violent, and prone to bite as a dog would.

Does it follow then, that all persons bitten by a rabid dog or other animal, must die? is there no hope for them? assuredly we would not promulgate such a doctrine as this. In the first place, a very small proportion of those who are so bitten have the disease at all; and this partial immunity has sufficed to establish a false reputation for many of the nostrums vaunted as infallible remedies. If the bitten person becomes not mad, the nostrum has saved him; if he dies raving it has not been rightly administered, and so the faith of believers remains unshaken, and quackery is triumphant. It has been calculated that the proportion of persons bitten who suffer from the disease is about one in twenty-five.

*Treatment.* As no positive cure has been discovered for this terrible disease, all efforts must be merely preventive; directly the bite has taken place, a free excision of the wound should be made, taking care that every particle of flesh that the saliva has touched be removed; then thoroughly wash the wound with tepid water, keeping up this application for a considerable time: some recommend stimulating dressings to the part, but the advisability of this is very questionable; better to let the wound heal than to keep the system in a state of irritation. If there is any doubt about the poison being all removed, a strong solution of lunar Caustic should be applied, or the Caustic itself; this is as likely to be as effective as the actual cautery, which some recommend. Mr. Youatt says he never saw the lunar Caustic fail, and it may be used at any time before the disease manifests itself, although the longer it is delayed, the less chance is there of success.

The alleviating measures to be resorted to when the disease has manifested itself are, the application of Ice to the spine and fauces; the inhalation of Chloroform, and Prussic Acid dropped on the tongue a drop or two at the time; injecting into the bowels 3 or 4 ounces of Starch Jelly with 2 or 3 grains of Morphine; and rubbing in about every four hours a drachm of Mercurial Ointment with 2 grains of powdered Opium. During the inability to swallow, food or medicine may be injected while the patient is under the influence of Chloroform. Some recommend tracheotomy to relieve the spasmodic contraction of the throat, but no good results have followed in the few cases in which it has been tried. When, as is often the case, the patient is violent, he should be restrained by a straight waistcoat, or some such contrivance, from injuring himself and others. Cold

affusion is a remedy always at hand, and one that has produced beneficial results; get some water at as low a temperature as possible, and pour it from a considerable height over the back of the head and along the upper part of the spine: this greatly reduces the action of the heart, and it is necessary to watch the pulse carefully during the process, and stop it as soon as it sinks in a dangerous degree. Sedatives and refrigerants must be mainly employed in these cases, as the patient is suffering under a violent excitement consequent on the introduction of a poison into the system, which excitement, if not subdued, will inevitably and quickly exhaust the vital powers. (See *Madness*).

**HYDROPS** (Gr. *ydor* and *ops*, the aspect or appearance). A term applied to the morbid accumulation of water in a cavity, or the cellular tissues of the body; it is distinguished as *H. abdominalis*, or Ascites; *H. ad matutium*, Diabetis; *H. articuli*, Hydarthrus; *H. cysticus*, Cystic Dropsy; *H. genu*, Dropsy of the Knee; *H. medullæ spinalis*, Hydrorachitis; *H. oculi*, Hydrophthalmia; *H. Ovarii*, Ovarian Dropsy; *H. pectoris*, Hydrothorax; *H. pericardii*, Hydropericardium; *H. pulmonum*, Oedema of the Lungs; *H. scroti*, Hydrocele; *H. uteri*, Hydrometra; *H. sacci lachrymalis*, Dropsy of the Lachrymal sac. See *Dropsy*, and terms here used.

**HYGEIA** (Gr. *ygiaio* to be well). The preservation of *Health* (which see). Hygeia, the goddess of health, of the Greek fabulists, is said to have been the daughter of Æsculapius, the god of physic; to her the matrons of old consecrated their locks; she is said by some to have been the same as Minerva, the goddess of wisdom. From this root comes the term *Hygiene*, the science of the preservation of *Health* (which see).

**HYMEN**, the Greek god of marriage. A name given to the crescentiform fold situated at the entrance of the vagina; after its rupture at marriage, the remains are termed *Carunculae Myrtiformes*. See *Vagina*.

**HYMENÆA COUNBARIL**. The botanical name of the tree which yields the resinous gum *anime*, frequently sold as amber (see *Anime*), of which or *animæa* the above name seems to be a corruption.

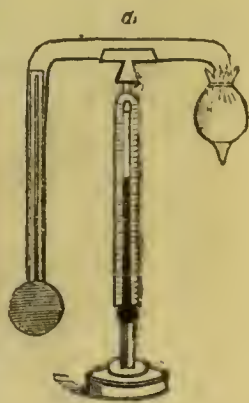
**HYGRO** (Greek *ugros*, moist). A prefix denoting the presence of moisture: as *Hygroma*, a humeral tumour; *Hygrometric Water*, that portion of humidity which gases yield to deliquescent salts.

**HYGROMETER**. This is an instrument to determine the amount of moisture in the

air. One much used is called the *wet bulb* hygrometer, and consists of two similar delicate mercurial thermometers, the bulb of one of which is covered with muslin, and is kept constantly wet by water, led on to it by a string from a tube in the centre. The evaporation of the water from the wet bulb reduces the temperature of that thermometer to which it is attached in proportion to the dryness of the air, and consequent rapidity of evaporation. The other thermometer indicates the actual temperature, and the difference being noted, a mathematical formula enables us to determine the dew point. But the most complete and beautiful instrument for this use is that of Mr. Daniell, which is here represented. The long limb ends in a bulb which is made of black glass, that the condensed vapour may be more easily seen on it. It contains



a portion of ether, into which dips the ball of a small and delicate thermometer contained in the cavity of the tube. The whole instrument contains only the vapour of ether, air having been removed. The short limb carries an empty bulb, which is covered with muslin. On the support is another thermometer, by which we can observe the temperature of the air. When an observation is to be made by this instrument, a little ether is poured on the muslin: this evaporates rapidly, and the bulb becomes cooled. After a time, through the cooling agency, dew begins to deposit on the black glass, and the point at which this takes place is determined by the included thermometer.



**HYOIDES** (Greek *y* and *eidos*, likeness). A bone situated between the root of the tongue and the larynx, generally called *Os hyoides*; the muscles attached to which are distinguished by names compounded of this Greek letter *y* or *hyo*—thus we have the



*Hyo-glossus*, which draws the tongue inwards and downwards. See *Tongue*.

**HYOSCYAMUS.** (See *Henbane*), the alkaloid extract from which is called *Hyoscyamia*.

**HYPER** (Greek, *yper*, over or above). This prefix, denoting excess, is applied to several forms of diseases, as *Hyperhæmia*, excessive fulness of blood; *Hyperostosis*, an enlargement of a bone, or of its membranous covering. The term is also applied to some chemical compounds, as *Hyper-Oxymuriatic Acid*, or, as we now say, Chloric Acid; its compounds are *Hyper-Oxymuriates*, or Neutral Salts, now called *Chlorates*.

**HYPERICUM.** Is a name given to the plant called St. John's Wort, from its supposed power over evil spirits. Of the natural order *Hypericaceæ*, there are several species, all of which are reputed to possess medical properties; the most common with us is *H. Perforatum*, which has a bitter,



resinous, and somewhat astringent taste. It has been used as a vulnerary, both externally and internally; and has been considered useful in hysterics, intermittent fevers, dysentery, hæmorrhages, chest complaints, worms, and jaundice. In France, Germany, Wales, Scotland, and some of our own rural districts, it is still regarded as, in some degree, a sacred plant; and was at one time especially used in the superstitious observances of St. John's Day.

**HYPERTROPHY.** Is applied to certain enlarged states of the tissues and organs, and signifies an excess of nutrition: thus

we have *Hypertrophy* of the Liver, resulting from an inordinate use of alcoholic stimulants, and commonly called Drunkards' Liver; and also enlargement of the accidental Erectile Tissues, consisting of capillary vessels in a state of *Hypertrophy*.

**HYPNOBATES** (Greek *ypnos*, sleep, and *baino*, to walk). One who walks in his sleep. See *Somnambulism*.

**HYPNOTICS** (Greek *ypnos*). Applied to medicines which procure sleep. See *Anodynes*, *Narcotics*, *Soporifics*.

**HYPO** (a Greek prefix, signifying under); hence we have the terms *Hypo-chondrium* (Greek, *kondros*, cartilage), the *hypo-chondriae*, or upper lateral region of the *Abdomen* (which see), and from this, *Hypo-chondriasis*, a state of uneasiness in that region generally proceeding from dyspepsia, and producing great lowness of spirits. The people of this country are said to be especially liable to this affection; hence Dr. Cheyne has termed it the English disease: suffering under it, a man is said to be *hypped*, or, as some would say, he is affected with the *Morbus literatorum*. It is rather a symptom than a disease, and is found, more or less, in all bilious and dyspeptic patients, especially in those of a cold and phlegmatic temperament. Active exercise, change of scene and air, sea-bathing, and proper attention to the biliary and other secretions, are the best remedies. We have in this affection a striking proof of the influence of the body over the mind.

**HYPOCHYMA** (literally, to pour out). A term applied by the Greeks to cataract, which they also called *Apochysis* and *Hypo-chesis*. The term seems to have been first used by the Arabian writers, although they more commonly called the disease *Gutta obseura*. This was the *Suffusio* of the Latins. See *Cataract*, *Eye*.

**HYP-O-GASTRIC.** Belonging to the *Hypogastrium*, or lower anterior region of the abdomen, sometimes called the *supra-pubic* region, from lying above the pubis. The term *Hypogastric* is applied to the glands situated on the sides of the cavity of the pelvis, and also to a plexus composed of filaments from several nerves of the sciatic plexus.

The other medical terms to which this prefix is applied are *Hypo-glossal* (Greek, *glossa*, the tongue), the name of the *linguales*, or ninth pair of nerves, situated beneath the *Tongue* (which see). *H. gala*, *H. hæma*, *H. lymphæ*, *H. pyæma*; effusion of milk, blood, lymph, or pus into the chamber of the aqueous humour of the *Eye* (which see). When there is an effusion

behind as well as in front of the iris it is called *Emphyema oculi*; *H. spadias* (Greek, *spao*, to draw); a malformation of the penis, in which the urethra opens into the under surface. *H. sarca* (Greek, *sarkos*, flesh), a term used by Celsus for *Anasarca* (which see). *H. thenar* (Greek, *thenar*, the palm of the hand), one of the muscles contracting the thumb; *H. thesis* (Greek, *ypotitheni*, to put under): a system or doctrine founded on a theory or supposition is called an *Hypothesis*; that which is built upon conclusions drawn from a careful collection and examination of facts is, on the contrary, an *Induction*, which must be the basis of all true philosophy. In the treatment of diseases especially, should we be careful to avoid proceeding upon mere hypothesis; nothing but a close examination and comparison of facts can justify proceedings which involve the issues of life and death, although we often see the wildest theories brought to bear upon medical practice, and persons whose peculiar views, differing as they do widely from those of the great majority of the profession, and, therefore, one would think, open to suspicion, looked up to and followed as though they had exclusive admission to the temple of knowledge, by some unknown way, and been entrusted with some of her most valuable secrets.

**HYSTERIA** (Greek *ysteria*, the uterus.) A nervous affection chiefly seen in females, and generally connected with uterine irregularities; it is sometimes called *Clavus* or *Globus Histericus*, and is commonly known as *Hysterics*. As this is a very common affection, and one amenable to domestic treatment, it is desirable that we should devote some little space to a consideration of it. First let us observe, that the age at which there is the greatest proneness to Hysteria, is from that of puberty to the fiftieth year, that is from the accession to the cessation of menstrual life; at the beginning and end of which it is more frequent and marked than at any other period. Single women, and the married who do not bear children, are most subject to it, although it sometimes occurs at the early period of pregnancy and immediately after child-birth. Persons of studious and sedentary habits, and of scrofulous and weakly constitutions, are especially likely to be the subjects of Hysteria; as are indolent and plethoric persons, and those debilitated by disease, or excesses of any kind: it may be excited by excessive evacuations, suppression of the natural secretions, strong mental emotions, or sympathy with others so

affected. It is a curious circumstance connected with this affection that it simulates almost every disease to which humanity is liable. A patient suffering under Hysteria may have a rough, hoarse, croupy cough, loss of voice, hiccup, pain in the left side, fluttering of the heart, running at the eyes and nose, spasmodic contractions and convulsive movements of various kinds, vomiting, copious evacuations, delirium, and all kinds of violent and unmanageable symptoms, which subside as soon as the hysterical paroxysm does. All this shows that the whole nervous system is peculiarly influenced by the affection. An attack generally comes on with a sensation of choking; it seems as if a ball were rising in the throat and threatening to stop the passage of the air; then the trunk and limbs become strongly convulsed, so much so that an apparently feeble woman will require three or four strong persons to restrain her from injuring herself; then follows the hysterical sobbing and crying, with alternate fits of laughter; generally the head is thrown back, the face flushed, the eyelids closed and tremulous; the nostrils distended, and the mouth firmly shut; there is a strong movement in the throat, which is projected forward, and a wild throwing about of the arms and hands, with sometimes a tearing of the hair, rending of the clothes, catching at the throat, and attempts to bite those who impose the necessary restraint. After awhile, the deep and irregular breathing, the obvious palpitation of the heart, with the symptoms above enumerated will cease; there will be an expulsion of wind upwards, and the patient will sink down, sobbing and sighing, to remain tranquil for a shorter or longer period, at the end of which she may again start up, and be as violent as ever; or she may go off into a calm sleep, from which she will probably awake quite recovered. A fit of Hysteria may last for a few minutes only, or for several hours, or even days; persons have died under such an infliction: it may generally be distinguished from epilepsy by the absence of foaming at the mouth, which is nearly always present in that disease, and also by the peculiar twinkling of the eyelids, which is a distinguishing symptom of great value, and a sign of safety. In epilepsy, too, there is complete insensibility, not so in Hysteria; the patient retains a partial consciousness; hence it behoves those about her to be cautious what they say; if any remedies are suggested of which she is likely to have a dread, her recovery may be greatly retarded thereby. In epilepsy there is laborious or



suspended respiration, a dark livid complexion, a protruding and bleeding tongue; rolling or staring and projected eyeballs, and a frightful expression of countenance. Not so in Hysteria; the cheeks are usually red, and the eyes, if not hidden by the closed eyelids, are bright and at rest; the sobbing, sighing, short cries, and laughter, too, are characteristic of the latter affection. We point out these distinctions that no unnecessary alarm may be felt during a fit of Hysteria, which is seldom attended with ultimate danger either to mind or body, although the symptoms are sufficiently distressing to cause anxiety.

*Treatment.*—The first efforts must be directed to prevent the patient, if violent, from injuring herself; but this should not be done in a rude, rough manner. It is, perhaps, best to confine her hands, by wrapping tightly round her a sheet or blanket. The dress should be loosened, especially round the throat, and the face freely exposed to fresh air, and both that and the head well washed with cold water; if she can and will swallow, an ounce of Camphor Mixture, with a teaspoonful of Ether, Sal Volatile, Tincture of Assafoetida, or Valerian, may be administered; strong Liquid Ammonia may be applied to the nostrils; and if the fit is of long duration, an Enema injected, consisting of Spirits of Turpentine, Castor Oil, and Tincture of Assafoetida, of each half an ounce, in half a pint of Gruel. What is required is a strong stimulus to the nervous system; therefore, dashing cold water on the face, and hot applications to the spine, are likely to be of service. Sir A. Carlisle recommends that a polished piece of steel, held in boiling water for a minute or two, be passed down the back over a silk handkerchief. This has been found to prevent the recurrence of the paroxysm, which has before been periodic; by which it would seem that the patient has some power of controlling the symptoms, when a sufficiently strong stimulus is applied, to enable or induce her to exercise it.

During the intermission of attacks of Hysteria, attention should be devoted to any constitutional or organic defects, from which they are likely to arise; the patient's mind should be kept as tranquil as possible, and a tendency to all irregular habits or excesses held in check; if plethoric, there should be spare diet, and perhaps leeching; if scrofulous and weakly, good nourishing food and tonic medicines, particularly some form of Iron, the shower bath, regular exercise, cheerful company; antispasmodics, and re-

medics which have a gently stimulating effect, will frequently relieve the sleeplessness complained of by hysterical patients better than opiates and other narcotics. In such cases Dr. Graves recommends pills composed of a Grain of Musk and 2 or 3 Grains of Assafoetida, to be taken two or three times a day. When there is headache, dry-cupping at the back of the neck, or between the shoulders, will probably be of service. A change in the mode of life, involving entering upon new cares and duties, will frequently effect a complete cure of Hysteria, which, it has been observed, seldom attacks females of a vigorous mind. It is extremely desirable that, in the education of young females, the bodily powers should be well exercised and developed. Too little attention is paid to this generally, and the consequence is that a great many of our young women are weak and nervous, and frequently subject to hysterical affections.

**HYSTERITIS.** Is another term compounded of this Greek word *ysteria*; it signifies Inflammation of the Uterus; *Hysterocele* is Hernia of the Uterus, and *Hysterotomia* is another name for the Cæsarian section, or incision into the abdomen and uterus for the purpose of extracting the fœtus. *Hysteroptosis* is a prolapsus or falling down of the uterus.

**HYSTRIACIS** (Greek *ystris*, a porcupine). Applied to an affection of the liver, which renders it thick, rigid, and bristly.

**Hyssor.** *Hyssopus*, or *Gratiola Officinalis*, commonly called the Hedge Hyssop, or Poor Man's Herb; anciently known as *Gratia Dei*, Grace of God, from its supposed medicinal properties. It is found in most parts of Europe in moist places, but not in Britain, and is a popular domestic remedy in dropsy, jaundice, worms, chronic affections of the liver, scrofula, and various other complaints; but it should be used with considerable caution, as the fresh stem, leaves, and flowers, are violently purgative, and are likely to produce inflammation of the bowels, diarrhœa, and convulsions. When dried, they lose this property to a great extent, so that the Swiss, whose meadows abound with the plant, give it as fodder to the cattle. Orfila has seen dogs destroyed in a few hours after taking the extract of the plant, whose active properties appear to reside in a bitter resinous substance, called by chemists *gratioline*, which closely resembles the active principle of colocynth. The Hyssop belongs to the order *Cabiata*, it is supposed to be the *Zife* or *Cyfe* of the Arabians. (See cut at top of next page.)





**Ice** (Latin *glacies*). Water congealed at a temperature of 30° Fahr., which is called the freezing or congealing point; it is then called Ice, which is an agent of great value in the treatment of disease; it is the most ready and efficient means of abstracting undue heat from any part, especially the head. The best mode of application is to put it, coarsely pounded, into bladders, or elastic cushions; sometimes it is dissolved in water, with which cloths are saturated and applied, but in this way is not so effectual. As an internal remedy, Ice is given in hysteria and obstinate vomiting, small fragments being swallowed frequently, or allowed to dissolve in the mouth; in this way it is not only serviceable, but agreeable to the patient. In hydrophobia Ice has also been found serviceable; although only as a palliative, affording some comfort to the sufferer, who has thus been enabled to cool his parched throat, and in some slight degree to relieve his burning thirst. In scalded throat, from drinking boiling water, it is one of the best, safest, and most agreeable remedies, given as above directed, and it is sometimes useful in loss of voice. Indeed, wherever an anæsthetic agent is required, Ice, when it can be procured, is the very best; mixed with Salt, it is often used externally for neuralgic, and other affections of the kind.

Some caution is necessary in the application of Ice, as its action is very powerful, especially when applied to the head or

throat; in acute inflammation, and the active stages of fever, it may be borne for several hours; but if under its action the circulation becomes weak and languid, it should at once be taken off.

After numerous trials made with different salts for the purpose of converting Water in a tinned vessel into Ice during their solution, it has been found that equal quantities of Nitrate of Ammonia, Subcarbonate of Soda, and Water is the best mixture; 12 ounces of this produces, in three hours, 10 ounces of Ice.

**ICES and ICED DRINKS.** Very cool and pleasant in warm weather are the above luxuries, but we would not recommend our readers to indulge in them too freely, especially when the stomach is full, and the digestive organs ought to be in vigorous action, and for this the natural temperature of about 100° Fahrenheit is necessary; very cold fluids will reduce this 20 or 30 degrees, and thus, for a time, render the organs incapable of performing their proper functions, therefore the practice of eating Ice after dinner is decidedly injurious. *Immediately* after violent exercise, such as that of dancing in a heated room, Ices may be taken with impunity, if the constitution be not over delicate; if it is, they are at all times dangerous, but especially so when the body is fatigued. To the palate of the fever-parched patient, Ices are especially grateful and refreshing, nor is there any objection to his taking them in moderation; those flavoured with lemon and strawberry are perhaps the best. The following directions for Icing may be useful to some of our readers, they are from "The Wife's Own Book of Cookery:"—"Break almost to a powder a few pounds of Ice, and throw in among it a large handful and a-half of Salt; the Ice and Salt being in a bucket, put your cream into an ice-pot and cover it; immerse it in the Ice, and draw that round the pot so that it may cover every part; in a few minutes put a spatula or spoon in and stir it well remove the parts that are round the edges to the centre. If the Ice-cream or Water be in a form, shut the bottom close, and move the whole in the Ice; as you cannot use a spoon to this without danger of waste; there should be holes in the bucket to let the Ice off as it thaws.

**ICELAND MOSS.** This plant, the *Cetraria*, or *Lichen Islandica* of botanists, belongs to the class of lichens; it is parasitic, growing upon the trunks and branches of trees, and sometimes attaining a large size, especially on the lava soil of the west coast of Iceland, from which country, and Norway, our

principal supply is obtained; although it is also found amid the higher mountains of North Britain. As sold in the shops in a dried state, it has scarcely any odour, and



the taste is bitter and unpleasant. It may also be obtained in the form of a powder, or meal, which is of a whitish-grey colour. In Iceland this article is used extensively as an alimentary substance; the people of that barren country in allusion to it, say that it is "the gift of a bountiful providence, which sends them bread out of the very stones." "A porridge made of this lichen-meal is, to a foreigner," says Dr. Henderson, "not only the most wholesome, but the most palatable of all the articles of Icelandic diet." It is submitted to no other preparation than repeated steepings in cold waters, drying, and powdering; after which it is either made into cakes, or boiled in milk. Unless it is steeped, it is both offensively bitter, and also to many persons, purgative; hence it has been called *Lichen Catharticus*.

The excellence of Iceland Moss depends upon its freshness and freedom from impurities—these should be carefully removed before it is used. Soaking removes the bitter principle; retaining which it is tonic, stomachic, and febrifuge; without that it is simply demulcent and nutritive. It has acquired a high reputation as a medicinal agent in consumption, but we should not be inclined to place much reliance on its efficacy in such cases; probably it may help to sustain the system by the nutrition which it contains, and also to relieve those dis-

treasing pulmonary symptoms which mark the later stages of that most fatal disease. In Saxony the Iceland moss-meal has been extensively used in the making of bread; according to an estimate published by the Government of that country, 6 lbs. 11 oz. of this meal, boiled with fourteen times its quantity of water, and baked in this state, with 39½ lbs. of flour, produced 111½ lbs. of good household bread. Without this addition, the flour would not have produced more than 78¾ lbs. of bread; therefore, this addition of 6 lbs. 11 ozs. of lichen meal occasioned an increase of above 32 lbs. of bread—the drawback to this flattering statement is, that the increase was owing to the additional water absorbed by the meal.

The analysis of Berzelius gives as the constituents of Iceland Moss:—Starchy matter of a peculiar kind (called *lichenin*) 44·6; bitter principle (*cetrarin*), 3·0; uncrystallized sugar, 3·6; chirophyll, 1·6; extractive matter, 7·0; gum, 3·7; bi-lichenates of potash and lime, with phosphate of lime, 1·9; amylaceous fibrin, 36·2. Olsson asserts that a soup made with this meal is twice as nutritious as that prepared with flour.

*Iceland Moss Jelly* is made by boiling a ¼ lb. in 1 quart of Water down to a ½ pint, adding ¼ lb. of Sugar, and straining.

**ICHOR** (Greek). A thin acrid discharge, which issues from wounds, ulcers, &c.; it is very commonly tinged with blood. From this root we also get *Ichorous*, a semi-purulent discharge, partaking of the nature of *Ichor*. See *Wounds, Ulcers*.

**ICHTHYOCOLLA** (Greek *ichthynos*, a fish, and *kolla*, glue). The scientific name for isinglass, or fish-glue, which is prepared from the sounds and air-bladders of several kinds of fish, but especially of the great and small sturgeons (*Accipenser Huso* and *A. Sturio*). (See *Isinglass*). From the above root comes the term *Ichthyology*, that branch of zoology which treats of *Fish* (which see). Also

**ICHTHYOSIS**. Fish-skin disease; a papillary, indurated, horny condition of the skin. This is a very rare disease, which does not seem to be amenable to medical treatment. See *Skin Disease*.

**ICTERUS** (Greek *ikteros*). The Golden Thrush, a bird so called, on which, says Pliny, if a jaundiced person look, the bird dies, and the patient recovers. We now apply the name to *Jaundice* (which see). From the same root we get *Icteritia*, infantile jaundice; and *Icterodes*, a state of complexion resembling *Jaundice*.

**ICTUS SOLIS** (stroke of the sun). See *Coup de Soleil*.



**IDIOPATHIC** (Greek *idios*, peculiar; and *pathos*, an affection). A term applied to what we may call primary diseases—viz., those which are self-produced, if we may so speak; that is, they are not the result of others pre-existing in the system. These latter are called *Symptomatic*, or *Traumatic* (which see).

**IDIOSYNCRACY** (Greek *idios*, and *synkrazos*, composition). Individual peculiarities, hereditary or induced. In most individuals there are certain mental or bodily peculiarities, which we term *Idiosyncracies*; and these, to a certain extent, shape and fashion the life and mode of thought, and greatly influence the state of health. In reference to the latter subject, when we say that a man has a predisposition to gout or gravel, we allude to one of his Idiosyncracies, and we speak of the gouty or other state of that man as his *Diathesis* (which see). What are commonly called antipathies, are the peculiar result of states and conditions of the system, to which the above terms may be properly applied; and it is impossible to affix any assignable cause for these, nor can the medical man be aware of them until he has noticed them in their effects, or been fully informed of them by the patient or his friends.

To some persons a particular odour is perfectly unbearable; others cannot abide a certain sound: the sight of an insect, or other animal not obnoxious to most people, will make this or that person ready to faint away, and fill the mind with a nameless dread; these are idiosyncracies, such as Shylock, in Shakspeare's tragedy of "The Merchant of Venice," alludes to—

"Some men there are love not a gaping pig;  
Some that go mad if they behold a cat," &c.

Then there are those in whom certain medicines produce an extraordinary and altogether unusual effect. We have known a few grains of any mercurial preparation, which would have little or no effect upon systems generally, salivate a person; and food pleasant and wholesome to most, act like a poison: again, we have seen a particular drug produce a totally different effect from the common one, such as an opiate producing restlessness instead of sleep, and *always* doing this, when administered; for we must distinguish between what are permanent constitutional idiosyncracies, and anomalous conditions of the system which arise from temporary causes. Individuals are often met with who are, in every other respect, perfectly healthy, and who have yet one or more of these peculiarities, which may perhaps be referred to some dietary or other

error in himself or his ancestors; for it is curious to observe how they are sometimes handed down from generation to generation. See *Hereditary Predisposition*.

**IDIOTCY.** (Greek *idiotes*; originally an ignorant person, one who practised no art or profession—as we consider it, a person deprived of sense, an imbecile). This is a state commonly attendant on a disordered or defective state of the brain; some make a marked difference between Idiocy and Imbecility, saying that one is congenital and the other acquired; but there seems, in truth, but little ground for this distinction, and the latter may be regarded as but a minor degree of the former; indeed, we may notice in idiots every shade of mental imbecility, from the faint glimmering spark which scarce lights its possessor to the mere satisfying his animal instincts, up to the very verge of reason, and all these defective mental conditions seem, contrary to the generally received opinions of a century ago, to be capable of improvement, by attention to the physical health, and the education of the faculties of the mind. That Idiocy is not a defect of the mind alone, but depends greatly upon physical influences, we have sufficient proofs, in the good effects produced by the strict attention to health, and cleanliness, and proper dietary regulations, which prevail in most of our asylums for the imbecile and insane. With regard to the cause of Idiocy, Dr. Forbes Winslow, in a paper read before the Medical Society, has remarked that "The great mass of idiots are said to spring from an unhealthy stock, and have either been the children of idiotic parents, or of those of vitiated organizations, of scrofulous diathesis, or of intemperate habits. Three hundred idiots were ascertained to have been the children of drunkards." Intermarriages of near relations is also assigned by this authority as one of the causes of Idiocy. May we not see by this what a tremendous responsibility rests upon parents—how carefully should they avoid all which may entail upon their children such direful results.

**IGASURIC ACID.** The name given by MM. Pelletier and Caventon to a peculiar acid, which occurs, in combination with Strychnia, in *Nux Vomica*, and in the Saint Ignatius's Bean (*Fabia Sancti Ignatii*), from the native Malay name; of which plant the above designation is taken. The acid here spoken of is so different from all other known acids, that by some its existence is doubted.

**IGNIS FATUUS** (Latin, deceiving fire). A luminous appearance or flame seen at night

in moist or boggy places; it is caused by the liberation of phosphorus from decaying vegetable matter, and is commonly known as Jack-o-Lantern or Will-with-the-Wisp. It may be looked upon as a sure indication of unhealthy exhalations arising from the spot about which it appears.

**IGNIS SACER** (Latin for sacred fire). Commonly called St. Anthony's Fire (*Ignus Sancti Antonii*). This is the *Febris Erysipelatosa* of Sydenham, the Rose, a form of *Erysipelas*, (which see).

**IGNIS VOLATICUS** (Latin for flying fire). A term for *Erysipelas* (which see).

**IGNITION** (Latin, *ignis*). The effect of caloric, implying an emission of light from bodies which are much heated, without their suffering any change of composition. The point of ignition or red heat of most bodies is about 800° Fahr.; its highest point is a perfectly white *Heat*, (which see), and *Caloric*.

**IGREUSINE**. That portion of volatile oil which is odoriferous, and is coloured by treating it with nitric acid. Herberger called it *Elaïdon*, or *Elain* (which see).

**ILEUS** (Greek *eileo*, to turn about; in Latin *volvo*, hence *volvulus*). This is costiveness with twisting of the bowels. (See *Iliac Passion*, and *Colic*); it has also been called *Chordapsus*, and *Miscerere*.

**ILEX**. The Latin name for the Holm Oak, now the general term applied by botanists to the *Holly*, (which see).

**ILIA** (plural of *ile*, Latin, from the Greek *eileo*, to turn about). The flanks; hence we have the terms—*Iliac Arteries*, which are common where they are formed by the bifurcation of the aorta; in their after division they are termed the *external iliac*, and the *internal* or *hypogastric iliac*. *Iliac Passion* is another term for cold; *Iliac Region* signifies the region on each side of the Hypogastrium; the *Iliac Meso-colon* is a fold of the peritoneum, which embraces the sigmoid flexure of the colon; *Ilium os* is the haunch-bone; and *Iliacus internus*, a muscle situated in the cavity of the Ilium. Then again, *Ilio* is the prefix of terms applied to parts connected with the Ilium, or haunch-bone, as well as the small intestines, so called from the convolutions of which they are composed: thus we have *Ilio-lumbar*, an artery which proceeds from the internal Iliac, and divides into an ascending and transverse branch, which are distributed to the lumbar muscles; *Ilio sacral*, applied to ligaments connecting the posterior surfaces of the sacrum and ilium; *Ilio-femoral*, the designation of ligaments of the hip-joint; and *Ilio-colic*, the name of the

valve by which the ilium opens into the colon.

**IMBECILITY** (Latin *imbecilis*, weak). Weakness of mind or intellect. See *Idiotcy*.

**IMBIBATION** (Latin *imbibo*, to drink in). This is the act of imbibing, or absorption of a liquid into the pores of a solid. The physiological terms *imbibation* and *exudation*, or *transpiration*, are analogous to those of *inspiration* and *expiration*. Following the example of Dutrochet, however, we now generally speak of the imbibing and transpiring processes as *endosmosis* and *exosmosis* (which see).

**IMITATION**. The imitative tendency is one by which all persons are, to a great degree, influenced, but especially the young, and those of quick nervous sensibility; Hysteria, Epilepsy, and several other diseases owe their extension greatly to this influence, which is always, to some extent, involuntary, although it may be partially controlled by a strong action of the will. We should be, at all times, especially careful to guard the youthful and susceptible from aught which may improperly excite the imitative faculty, so as to prevent mischievous results; they have been known, when placed much in the company of one who stammered or squinted, or had some other unfortunate peculiarity, to contract the same *Habit* (which see).

**IMPENETRABILITY** (Latin *in not*, *penetro* to penetrate). The property by which a body occupies any space to the exclusion of any other body. It is generally conceived that all matter is penetrable, but properly speaking it is impenetrable; that which is called penetration being but the admission of one substance into the pores of another.

**IMPERATORIA ASTRATHUM**. A native plant of the natural order *Umbelliferae*, commonly called the Great Master Wort. It is aromatic and stimulant, and was formerly held in such high repute as to be termed the Divine Remedy, but it is seldom used now.

**IMPERFORATE** (Latin *in not*, *perforatus* bored through). A term applied to any part congenitally closed, as the *anus*, the *hymen*.

**IMPERIAL**. A pleasant cooling beverage, or summer drink, which may be made by putting  $\frac{1}{2}$  an ounce of Cream of Tartar, with 4 ounces of Lump Sugar, and a few slices of Lemon, into a jug, and pouring on it about three pints of boiling water, and letting it stand until cool. This may be taken generally in feverish conditions of the system; sometimes, however, it produces irritation in the kidneys, attended with pains in the loins, and, in this case, should be discontinued.



**IMPETIGO** (Latin *impeto*, to infect). Various kinds of pustular skin diseases come under this denomination, but it is most usually applied to Yellow-crusted Tetters, or Yellow Scales; it is characterised by clustered pustules, terminating in a thin yellow scaly crust. See *Scale*, and *Tetters*, also *Skin Diseases*.

**IMPLICATED** (Latin for intertwisted). Old medical writers applied this term to those parts of physic which have a necessary dependence upon each other; but the moderns, following Bellini, apply it more significantly to fevers, where two at the same time afflict a person, either of the same kind as a double-tertian, or of different kinds, as an intermittent-tertian, and a quotidian, or as we sometimes say, a semi-tertian. See *Fevers*.

**IMPLUVIUM** (Latin *in*, and *pluv* to run). A shower bath; sometimes, also, applied to an *Embrocation* (which see) and *Bath*.

**IMPONDERABLES** (*in* not, and *pondus* weight). Agents which are destitute of weight, as *Electricity*, *Heat*, *Light* (which see).

**IMPOTENCE** (Latin *impotens*, unable). Incapability of sexual intercourse. This may be the result of some congenital defect, or of disease in the organs; but it most commonly arises from some functional or moral cause. The class of criminal indulgences involved in a consideration of this subject are such as we can but hint at here; to unveil their secrets would be to open one of the saddest and most degrading pages of the book of humanity. In all cases of impotence we would recommend an immediate recourse to a medical man; but by no means to place any confidence in advertising quacks, who fatten on the credulity of their fellow men.

**IMPREGNATION**. The act of generation on the part of the male. See *Conception*.

**INANITION** (Latin *inanco*, to empty). Emptiness from long fasting, exhaustion. See *Hunger*.

**INCANTATION** (Latin *incantio*, to enchant.) This was a mode of curing disease much practised in the old times of superstition, and is still so in some countries; it consists of certain charms and ceremonies, and is practised both with and without other medicines or remedial means.

**INCARCERATION** (Latin *in*, and *carcer* a prison). A term applied to some cases of hernia in the same sense as strangulation; more properly, however, Incarceration is applied to obstruction of the fecal matter, without injury to the texture or vitality of the bowels. See *Hernia*.

**INCENSE**. The gum resin of several

species of Juniper, so called because much used for sacrificial purposes. See *Frankincense*.

**INCINERATION** (Latin *incinero*, to reduce to ashes, from *cinis* a cinder.) The process of reducing to ashes by burning. The combustion of animal and vegetable substances for the purpose of obtaining their ashes as a fixed residue is very common in chemistry. By this process carbonates are generally formed.

**INCISION** (Latin *incido*, to cut). The act of cutting with the bistoury, scissors, &c. in operations and dissections. *Incisores*, from the same root, is the term applied to the cutting *Teeth* (which see).

**INCOMBUSTIBLE CLOTH**. A cloth woven of the fibres of asbestos, anciently used, as it is supposed, for wrapping round dead bodies when placed on the funeral pyre. The light gauzy dresses of ballet-dancers are now made unflammable by being subjected to a process of immersion in a solution of chloride of zinc. Since the introduction of erinoline, and consequent extension of ladies' skirts, several lamentable accidents have occurred by the dresses taking fire at the low grates which are now used in drawing rooms; it would be well therefore to make all ladies' dresses unflammable by some such process.

**INCOMPATIBLE SALTS**. We say that one substance is incompatible with another, when the two cannot unite in solution without a chemical decomposition. It is only, however, when the solution of these salts are of a certain density that this incompatibility exists. The following table from Henry's "Elements of Chemistry" may be useful in the compounding of domestic medicines, as showing what salts may be safely used, in combination, in a fluid form:—

1st, Fixed Alkaline Sulphates, incompatible with the Nitrates and Muriates of Lime and Magnesia; 2nd, Sulphate of Lime, incompatible with Alkalies, Carbonate of Magnesia, and Muriate of Barytes; 3d, Alum, incompatible with Alkalies, Muriate, &c. of Barytes, Nitrate, Muriate, and Carbonate of Lime, Carbonate of Magnesia; 4th, Sulphate of Magnesia, incompatible with Alkalies, Muriate, &c. of Barytes, Nitrate and Muriate of Lime; 5th, Sulphate of Iron, incompatible with Alkalies, Muriate, &c. of Barytes, Earthy Substances; 6th, Muriate of Barytes, incompatible with Sulphates—Alkaline and Earthy Carbonates; 7th, Muriate of Lime, incompatible with Sulphates, except of Lime, Alkaline Carbonates, Carbonate of Magnesia; 8th, Muriate of Magnesia, incompatible with Alkaline Carbonates



and Alkaline Sulphates; 9th, Nitrate of Lime, incompatible with Alkaline Carbonates, Carbonates of Magnesia and Alumina, Sulphates, except of Lime.

**INCOMPRESSIBILITY.** That property of a substance, whether solid or fluid, by which it resists being compressed into a smaller bulk. The ultimate particles of all bodies are supposed to be incompressible.

**INCONTINENCE OF URINE** (Latin *in* not, *continco* to contain). This is very common among children, and may be ascribed generally, to weakness; although, in some cases, it is owing to want of care in the nurse or mother. It sometimes occurs in grown persons, especially in males, after an operation for stricture, or some disease of the urinary organs; and in females after childbirth; it may, then, be attributed to some mechanical defect which allows the urine to pass off as fast as it is secreted. See *Bladder, Urine*.

**INCUBATION** (Latin *incubo*, to sit upon). A term not only applied to the period during which the bird sits on her eggs, but also to the period occupied between the application of the cause of inflammation, and the full establishment of that process.

**INCUBUS** (same root as the above). A distressing weight during sleep, usually preceded or accompanied by a frightful dream. The patient feels as though grasped and pressed down by an irresistibly powerful hand, against which he struggles in vain; he strives to cry out, but cannot; painfully sits the dreadful weight upon his chest, and seems almost crushing it in. At length he awakes in terror, and starts up in his bed, like one that has obtained release from some great danger. This may proceed from various causes: such as lying in a cramped and uneasy position, great fatigue, mental irritation, or flatulency; but the most common cause is eating indigestible food. Dyspeptic people are very subject to this nightmare, as it is commonly called. The only remedies we can recommend are, avoidance of the causes above enumerated, and a careful attention to the state of the bowels. (See *Dyspepsia*), also *Ephialtes*, *Suecubus*, which are but other names for Nightmare, and *Oneirodynia*.

**INCUS** (Latin for an anvil). A small bone of the internal ear, with which the malleus is articulated; it consists of a body and two crura. See *Ear*.

**INDEX** (Latin *indico*, to point out). The forefinger is so called, because it is most commonly used for pointing with. See *Fingers, Hand*.

**INDIAN FIG.** (Scientific name *Cactus*

*Opuntia*, or *Opuntia Vulgaris*). A member of the Cactus family, which has become naturalised in the south of Europe, to the



inhabitants of some parts of which, especially Sicily, its fruit is an important article of diet; it is a tree on which the cochineal insect feeds, and it is said that its fruit reddens the urine of those who habitually eat of it. See *Prickly Pear*.

**INDIAN RUBBER.** The inspissated juice of several American and Asiatic plants, which, when it first flows forth, is insipid, scentless, and of a yellowish white colour; but, on exposure to the air, it hardens, and soon becomes darker. There are various chemical properties which render this substance valuable, in both the fine and domestic arts; but its elasticity and imperviousness to water are its most valuable qualities. It is now, for many uses, superseded by gutta serena, but it is still extensively applied to such uses as the manufacture of waterproof sheeting, &c., elastic air, and water cushions, and *Beds* (which see.)

**INDICATION** (Latin *indico*). Circumstances which point out in a disease what remedies ought to be applied. A remedy is said to be contra-indicated when it is forbidden; from the same root we have also *Indicator*, a muscle of the fore-arm, by which the pointing motion of the fore-finger is effected.

**INDIGENOUS** (Latin *indigene*, a native). A term applied to diseases, animals, or plants, peculiar to a country.

**INDIGESTION** (Latin *in*, not, *digero*, to distribute). Interrupted, difficult, or painful digestion. There is nothing of which persons who are out of health so commonly complain as Indigestion, to which they attribute most, if not all, of their bad symptoms: the mischief, they say, is all in the stomach; and so, in fact, it very fre-

quently is; and, knowing how mischievous are the results of functional derangements of this part of the system, they should be especially careful not to overtask or abuse its powers; yet how little regard is paid to this important matter generally! and we meet, as a natural consequence, dyspeptic grumblers at every turn. We have already, under the several heads of *Aliment*, *Digestion*, *Food*, &c., endeavoured to give our readers some idea of the nature and modes of operation of the digestive organs, and of the kind of ingesta best adapted for sustenance, and most easily digested and assimilated. We have now, therefore, only to speak of the causes, symptoms, and treatment of *Dyspepsia*, as Indigestion is frequently called.

First, as to the *causes*; these are numerous: prominent among them are over-feeding, or under-feeding; giving the organs either too much or too little to do, will enfeeble them, and throw them out of working order; going too long between meals, or taking them too frequently, will have this effect if continued, as well as any irregularities of living; excesses, or vicious indulgences; sedentary habits, intense mental study and toil, over fatigue, or exposure to wet and cold; undue mastication of food; anxiety and distress of mind, or any great shock to the system, either of a physical or mental character; inordinate use of alcoholic stimulants, tobacco, opium, or other narcotics; all these, and many more, are causes of Indigestion, and one of the most common of them is eating in too great a hurry. "The food we take," says Dr. Watson, "should be well ground in the mill that nature has provided for the purpose. It is probable that the increased longevity of the modern generations is in some degree attributable to the capability of chewing food, which the skill of the dentist prolongs to persons having defective teeth."

We should bear in mind that whatever passes the stomach undissolved by the gastric juice—which cannot act on it sufficiently if it is not well masticated—goes through the alimentary canal in a similar state, and not only affords no nutriment to the body, but causes functional derangement, which, if continued, is likely to lead to absolute organic disease. In strong healthy persons, who lead an active life, such substances may do no great harm; nay, if the bowels are sluggish, they may prove beneficial by acting as a stimulus—hence the utility of brown bread, which contains a considerable portion of bran; but to those who have weak, or even but ordinary digestive powers, food

insufficiently masticated will, in the end, if not immediately, prove injurious: it will sometimes, when passed down the alimentary canal in this state, act almost like a poison, giving the patient no ease nor rest until it is got rid of, either by means of a strong purgative or an emetic.

The *symptoms* of Indigestion are almost as various as the causes; habitual constipation, flatulency, acid eructations, with heartburn and water-brash, loss of appetite, nausea, and vomiting, restlessness and fearful dreams, pains in the chest and weight at the pit of the stomach, headache and, by sympathy, all kinds of nervous pains. These are among the most common, and the mode of treating them is set forth under their several heads. We may, however, make a few remarks upon the general mode of *treatment* necessary to be adopted. If strong, active, and otherwise healthy persons are troubled with Indigestion, as is sometimes the case, stimulating purgatives should be first tried, combined with mercurials, if the biliary secretions are not as they should be: Rhubarb, Ginger, and Carbonate of Soda, about 10 grains of the first, and 5 of each of the second and third, taken an hour before dinner will be good; or a 5 grain Rhubarb Pill, with, every other night or so, an alternative, in the shape of a 3 grain Blue Pill. The supper should be Gruel with a little Salt, and Brown Bread should be eaten regularly for a time; about half a teaspoonful of Mustard Seeds swallowed occasionally will also be of service. The proper action of the skin as an excretory organ should be promoted by frequent washing and friction; and all indulgence in strong drinks and rich food avoided. For weakly persons of sedentary habits, a light nourishing diet is required, with gentle aperients; a glass of Bitter Ale with the dinner is good, or of Sherry or Port wine; exercise and cheerful company, if it can be had, and plenty of sleep; a pill composed of Ox-gall evaporated to a proper consistence, with Extract of Gentian and Aloes—say a drachm of each, and 24 grains of Sulphate of Iron, made into 24 pills, two to be taken every day, an hour before dinner, have been found beneficial. Dyspeptic people are often hypochondriacs, the one, in some cases, being the effect of the other; they should have diversion, change of scene, something to make them forget their troubles, real or imaginary. Europeans who remain for awhile in warm climates, generally return dyspeptic; that is in consequence of the enervating effect of the heat, and the excess of stimulus ge-



nerally taken, the stomach loses tone—the digestive organs become weak and inert; in this case, the Bath or other Chalybeate Water, will be the best resource, with a tolerably generous diet, but not too much wine and brandy; digestive dinner pills, and so forth; the bile is more generally at fault, therefore a Mercurial Pill now and then is required.

**INDUCTION** (Latin *inductio*). Introducing. In *electricity*, the effect of an insulating electrified body which tends to produce an opposite electrical state in surrounding bodies; similar to this is *Magnetic Induction*; and *Electro-Magnetic Induction* is the production of magnetism by electricity in motion. See *Electricity* and *Magnetism*.

**INDURATION** (Latin *induro*, to harden). This is the effect of chronic inflammation, producing an increase in the natural consistence of organs; it is opposed to *softening*, or as the French say, *ramollescent*.

**INERTIA** (Latin *iners*, sluggish). Sometimes erroneously called *vis inertia*, these two words contradicting each other. The above term is applied to express the inactivity or opposing force of matter, with respect to rest or motion. It is overcome by attraction, or by external force. Thus, then, in natural philosophy, we estimate the quantity of matter by that of its *inertia*, and we estimate the quantity of this latter, by that of the force required to put it in motion at a certain given rate.

In Surgery, we apply to term *inertia* to that condition of the uterus in which it does not properly contract after parturition; in that case we have uterine *Hæmorrhage* (which see).

**INFANTS.** As ours is a book especially designed for the mother and the nurse, the treatment of children is one on which we shall naturally be expected to dwell at considerable length. We shall, therefore, take the first stage of infantile existence as our starting point, and, in as brief and clear a manner as possible, explain the various operations and processes, means and measures, which are, or may be, necessary for bringing a child safely through the difficulties and dangers of babyhood. How great are these dangers is shown by the well-ascertained fact that nearly half the children born in this country die before they reach the age of five years; this is a fearful rate of mortality, and it would seem to indicate that, notwithstanding our high state of civilisation, there must be something very defective in the general run of our infant management: indeed, it has struck us as not unlikely that the too com-

mon practice of mothers in the upper, and sometimes in the middle classes of society, of delegating to others that most tender and delicate of the mother's duties, viz. suckling the child, may possibly have something to do with this high rate of mortality among infants, and we would impress upon such of our readers as are mothers, or likely to become such, that nothing but the most urgent necessity should induce them to forego the performance of this most pleasing and sacred duty. Even if the child have all the aids and appliances that wealth can procure—a healthy wet-nurse, and the most careful possible of *hired* superintendence—it can never have the same advantages, and the same chances of escaping the dangers which beset its early career, as if it drew nourishment from the mother's breast, was nursed in the mother's arms, and watched over by the anxious carefulness of the mother's heart. There are cases we know, and many, in which the child must of necessity be deprived of these advantages, and confided to the care of those who are not its natural guardians; but there are many more cases in which there is no real necessity for such deprivation—only “the usages of polite society require it.” Far “more honoured,” we would say, are such customs “in the breach than the observance.” Mothers! suckle your infants, if God has blessed you with the means of doing so; if you have health and strength, and can by any possibility do it, watch over your tender nurslings, and bind them to you so closely by the cords of natural affection, that no after change, or circumstance of life, shall be able to loosen those blessed ties. But this is a digression into which we ought not, perhaps, to have been tempted, and from which we must return to the more practical part of our subject.

*Infant Management.* Directly the little creature has entered upon the stage of existence, and has been washed and dressed by the experienced hands of a careful nurse; after the first feeble cry has been uttered—that cry that so thrills the mother's heart, it will be well content to be quiet for a while, wrapped in warm flannel, and placed in the maternal arms, or, if that may not be, between the blankets, or in the nurse's lap; there will be a calm breathing, and a flush of life spread over the tiny face; and the eyes, which have only once yet looked upon the world, will be closed in sleep. It is probable that, for many hours, the infant will be thus calmly sleeping, as motionless as Chantry's chiselled children; one can only tell it lives by the heaving of the chest,



and the colour in the slightly-parted lips and small lineaments; but at the end of some hours, sooner or later, there will be a slight restless motion, as the pulse of life grows stronger in the veins, and the demands of nature for sustenance are just beginning to be felt. The mother has, ere this, probably, sufficiently recovered her strength to be able to take the child to her bosom, and holding it there in a loving embrace, she counts every tiny pulsation with a delight which only a mother can experience. But she cannot yet satisfy the want of which the Infant is but half conscious, for unlike the lower animals, which can suckle their young directly they are born, the lacteal fluid will not flow from her breast until the end of the second, or sometimes, even the third day. It is concluded by some that the mouth of the Infant should not be applied to the breast until that period; but Dr. Marshall Hall says "Let this application be made as soon as the fatigue of labour is perfectly over, if the mother is doing well. The child's mouth is softer than that of the nurse. The secretion of the milk will be greatly excited, and the milk secreted will be equally gently removed. There will then be no milk abscess—no milk fever in many cases in which these must otherwise occur. If the Infant be not early applied, the breast becomes swollen, and the nipple drawn in; and nursing becomes at once difficult and painful to the mother, and a source of fretfulness to the Infant."

It is very common for a nurse to give to an Infant, a few hours after it is born, a very little thin, perfectly smooth Oatmeal Gruel; this affords the necessary nutriment, and excites a gentle action of the bowels, and has the effect of relieving them of a thick, dark-coloured matter, technically called *meconium*, which they contain at birth; a drop or two of Castor Oil is also given, with or without the Gruel; this, perhaps, is scarcely necessary, but there is no valid objection to it, therefore, if it is the nurse's usual practice, she need not be interfered with in the matter. If, at the end of the first day, no sustenance can be obtained from the mother's breast, a little lukewarm fluid, composed of cow's Milk and Water, in equal proportions, and slightly sweetened with Lump Sugar, should be given in a feeding bottle, with a prepared calve's teat, or a nipple of India-rubber fitted to it; by this the child's mouth becomes accustomed to the natural mode of obtaining nourishment; when this kind of food has once been given, it should be continued about every two hours or so, a

very small quantity at the time; letting the child, before each feeding, endeavour to obtain it from the mother's breast first; as soon as it can do this, of course all artificial food should be put aside—that is, if the flow of milk is sufficient; if not, the breast and the bottle may be used alternately, for awhile. Dr. Marshall Hall truly observes, that "the mother's milk and the mother's warmth are the proper sources of nutriment and heat to her own Infant; it should lie on no other breast and in no other arms." And certainly, for the first six or eight months of infantile life, no other than the natural nutriment is required, provided the supply of this be good, and sufficient in quantity; should this not be the case, the question of artificial food will have to be considered, unless a wet nurse is engaged, against which there are many objections, both economical and moral.

The following considerations are urged by Dr. Hall as to the morality of the employment of a wet nurse:—1. If she be a married woman, it is obviously exceedingly wrong to take her from her own husband, who, thus deprived of the comforts of his home, will be apt to wander into paths of vice. 2. If the wet nurse be unmarried, her own Infant may become the victim of her desertion. It is astonishing how fearful is the mortality amongst the children of the poor, when thus forsaken by their unnatural mothers.

It must be admitted, however, that the necessity for a wet nurse is sometimes imperative, in that an Infant may die for want of a nurse, it becomes an interesting question what plan may be morally and properly adopted.

It may occasionally happen that an unmarried mother shall lose her own Infant; in such a case her milk may be preserved in order that she may fulfil the office of wet-nurse.

In other cases, whether of emergency or otherwise, those who desire the services of a wet nurse, should take her together with her own Infant, enabling her by strict discipline in diet, air, exercise, rest, &c., to nurse both children. If married, she should be taken from her own home as little as possible. If unmarried, she should be received with her own Infant; and such is the most legitimate mode of proceeding; for thus she herself may be reclaimed from a course of vice and misery. If stout, she will be enabled to nurse both Infants; if otherwise, her own has the first, or rather only claim upon her." The observations of this authority upon Infant management are so good

that we are tempted to continue our quotations. "Every noble-minded and tender-hearted mother will desire to nurse her own Infant; and if she pursue the proper course of conduct, she will generally be enabled to do so. If it should really be otherwise, it may be well to consider whether the Infant should not be brought up by the hand. But if a nurse be chosen, it should be, if possible, on the principles laid down Nursing her own Infant, the mother becomes the watch over its growth and development; over its health and happiness. Have you never seen an Infant rickety because it was ill-nursed? Have you never known incurable and insidious diseases to steal in from a similar cause? Have you not an eye also to see that one Infant is happy and another miserable, although but an Infant? Be assured that it is the mother's fault if the Infant's limbs are crooked, or its mind unhappy; or, I had almost said, if its health be impaired. To every mother, then, is to be committed the care of her own Infant, in its largest, broadest sense. She is the first to submit herself to all those rules of diet, medicine, exercise and quiet, which are essential to insure her own good health. She is then to supply her own Infant with milk, and with warmth, and for this latter purpose, she should lay it by her own side in the night. She should, in the third place, become the superintendent of its health, detecting the first signs of indisposition, and seeking immediately for the remedy.

Nor does the mother's office terminate even here. But she will go on to superintend the development of its mental powers, its dispositions, and its affections."

Such is the language of the true man of science, and the philanthropist, with regard to a mother's office and duties, and it would please us well to quote, yet more, largely from this distinguished physician's "Letters to a Mother," but that our space is required for that which has a more practical bearing on our subject; Dr. Bull observes, "that one of the most fruitful sources of disease, in the early days of infantile life, is improper management in relation to diet, and a large proportion of the suffering and mortality which occurs during this period, arises from this cause alone;" and he points out very clearly and forcibly the necessity there is of nursing upon a regular plan to insure the present and future health of the child.

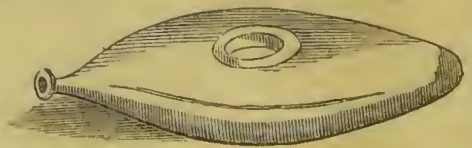
It has been well observed, that "Many nurses, acting upon the erroneous notion, that liquid food contains but little nourish-

ment, think it necessary to administer food often, and thus oppress the stomach, and excite vomiting; observing, again, that immediate relief follows the emptying of the stomach, they further adopt the notion that vomiting is a sign of health, and by this false reasoning are led to persevere in a course of positive mischief to the child. This can only be rectified by observing how long a child can suck vigorously, and what quantity it can take without this rejection of the food; each meal can then be gradually diminished, until the evil is remedied.

The position of the Infant during the time of feeding is of consequence; if fed from the breast, it will naturally be placed in a semi-erect position; and if artificially, it should also be slightly raised, and in the latter case, care should be taken to keep the body warm; for it should be remembered that, while suckled at the breast, it derives great warmth therefrom; in this position, too, it can swallow the food more comfortably than when laid flat on its back, and the nurse can more easily perceive when it has had enough.

It is a great error to give the Infant either the breast or the bottle too frequently; every three or four hours will be often enough in most cases: a child is not always hungry when it cries; there may be pain or uneasiness of some sort, and over-feeding will only increase the evil, although sucking may for a time keep it quiet; the digestive organs require rest with the young, as with adults, and indeed more so, on account of their being far more weakly.

It is desirable that we should say something here about *Feeding Bottles* and *Artificial Teats*, both of which are required for children brought up by hand: the bottle which has been most commonly used is of this shape—



with a prepared calf's teat, or one of India-rubber, over the nose. Of late the use of this has been in some degree superseded by several new inventions, among which may be mentioned, as especially worthy of notice, Maw's Improved Feeding Bottle, with teat of prepared ivory or caoutchouc, and another by the same manufacturer, of which we give a cut, the first in next page. These are both very good and useful articles; but we are inclined to give the pre-



ference to "The British Feeding Bottle," invented by Mr. Cooper, of 26, Oxford-street, London, which is represented below—



Its advantages are, as the *Lancet* truly states, that—"It may be placed in any position without the food running out. The supply of



food can be regulated, by means of a stop-cock, while the Infant is sucking, without removing the teat from the mouth, so that biscuit-food, or a single drop of milk, can be passed through, or the supply can be immediately stopped. Being electro-plated, on white metal, it may be instantaneously cleaned by washing in water. Unlike wood, ivory, or bone, it is impervious to water, and cannot become sour. There is no possibility of the Infant drawing air with the food, a frequent cause of convulsions. The whole is so simple that a child may be instructed to manage it."

We should observe that the teat of this bottle is of soft enamelled India-rubber, finely perforated to imitate the nipple, which can be instantaneously removed, washed, and wiped dry.

In a little code of instructions which Mr. Cooper issues with his bottle, he makes some remarks on *cleanliness*, which will equally apply to all contrivances of the kind:—"In rearing by hand the utmost cleanliness is indispensable, and neither the bottle nor the nipple should ever be laid aside without being thoroughly washed with hot water, wiped dry, and the mouthpiece not put into the bottle until required. A

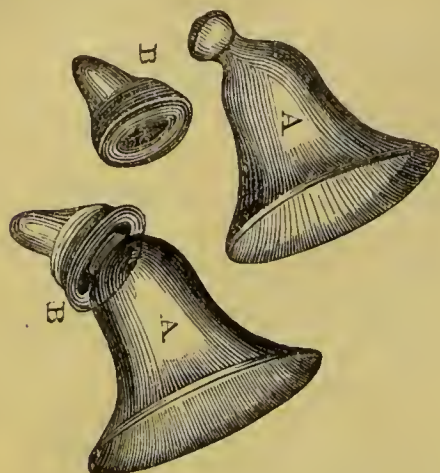
bottle brush, an extra teat, and an extra bottle, in case of accident, should be kept in the nursery." Again, as to *quiet after meals*, we may quote with advantage from this little pamphlet:—"In whatever way the Infant is brought up, its treatment, after being nursed or fed, is far from being a matter of indifference. During the first few weeks of existence the Infant will fall asleep immediately after having the breast, and this, as being the order of nature, ought to be encouraged. If, from thoughtless gaiety or activity in the nurse, it be dandled, carried to the window, or otherwise excited, indigestion will be sure to follow, accompanied possibly by nervous irritation, colicky pains, or bowel complaints; even when so much sleep is no longer required, quiet for some time after feeding ought to be encouraged, as much bodily activity immediately after meals is unfavourable to easy digestion in a delicate constitution."

We quite agree with Mr. Cooper, that "milk ought to be the diet of Infants for a certain time, and *it alone* will be sufficiently nourishing for nineteen out of twenty children—perhaps ninety-nine out of a hundred. Fewer children would perish, if so fed, than are destroyed by rushing into the opposite extreme of feeding them with more viscid food; the use of farina or farinaceous foods for all Infants under the age of nine months, and even in many beyond that, lays the foundation of future disease; the powers of assimilation in an infant not being suited for such food. Milk alone is the natural food, and this should be pure, not skimmed, nor previously reduced by water—unless in the country, where the milk is particularly rich, and then it may be reduced with one-third of water; in warm weather the milk should be placed in the coolest place that can be found; and should there be the slightest tendency to acidity observed, it should be at once rejected; sweetening with sugar in such a case would but increase the evil." As to the *temperature* of the food:—"Our great aim ought to be to follow as much as possible in the footsteps of nature; and as we may observe that 96 or 98° Fahr. is the temperature of the mother's milk, so should we give it to the Infant; and for the purpose of regulating this, as well as the state of the atmosphere, a thermometer should be kept in every nursery. The milk should not be boiled, but a jug containing it may be placed in boiling water, and so the required heat retained."

Before quitting this branch of our subject,



we think it well to advert to two useful inventions, viz. Taylor's India Rubber Tubes for Feeding Infants, which do not require to be tied on the bottles, and are adapted for any kind of bottle or food, however thick; and the Registered Nipple Protector, of which we give a cut.



A, represents a shield of glass having a socket; B, is an India rubber teat, which clings to the nose of the shield, perfectly air-tight; and by sucking which the milk is obtained, without giving any pain or suffering to the mother. The neck of the shield is bent diagonally to direct the teat conveniently to the child's mouth.

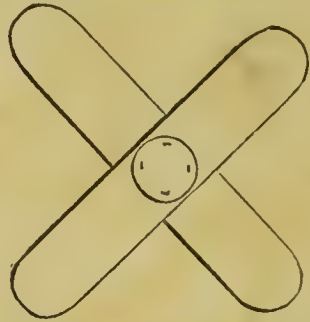
Having thus, as we imagine, said all that is necessary on the subject of food and feeding we will go back to the period of birth, and speak of other important matters, on which it is desirable that the mother or nurse should be informed. It sometimes happens after a protracted labor that the Infant, when brought forth, appears of a purple tint over the surface, and without the power to breathe, in this case; the nurse's finger, covered with a piece of thin linen, should be passed into the mouth to cleanse it of the viscid mucus which may obstruct the passage of air into the lungs; if the navel cord pulsates it should not be tied at once, but may be after the lapse of a few minutes, when it should be tied without further delay; in the mean time, efforts should be made to rescue the suspended animation in the child by patting it slightly on the back, blowing on its face, and placing its body in warm water up to the neck, taking care that the mouth and nostrils do not become submerged. Efforts should then be made to inflate the lungs by alternately breathing into the child's mouth, and then pressing upon its chest and abdomen, so as

to imitate the act of respiration; this last effort should be persevered in for a considerable time, as it has often proved successful in a child apparently born dead.

Electricity has sometimes proved a powerful agent of recovery in these cases; the great difficulty has been in obtaining a ready mode of application. Pulvermacher's Electric Chains appear to offer this, but we are not aware whether they have been successfully employed (see *Electricity*). We now come to *washing and dressing*: As soon as the Infant has been examined to ascertain if it be properly formed, and the umbilical cord has been properly tied, it should be washed in soft water, at a temperature of about 98, with soap and flannel, so as to remove the white unctuous matter which covers the skin; this should be done effectually, but very gently, care being taken to avoid fraying the skin; particular regard being had to the arm-pits and other folds of the body, into which, when the drying is properly effected, a little starch powder should be dusted by means of the powder puff; the drying should be done at a moderate distance from the fire to avoid scorching. The portion of the navel cord which remains attached to the child should be wrapped in a piece of soft linen, over which should be passed a binder of flannel about 6 inches wide, and long enough to go twice round the body firmly, but not so tight as to cause pressure, which might interfere with respiration; this binder should be fastened with needle and thread, and not by pins; and this caution will apply to all the wrappers or clothing of the child, then or at a future time. When all this is done, the child should be placed in a flannel receiver and wrapped up warmly, but not covered so closely as to cover the face and mouth; it should then be placed in a cradle to sleep, or better than this, on the bed by the side of its mother, whose natural warmth will be communicated to her Infant. On the question of first feeding we have already spoken, and as to clothing generally, it will be sufficiently obvious that it should be warm and loose, and easy to slip off or on: people used to swaddle their children up like mummies, and put them into small straight jackets directly they were born, but happily this absurd and pernicious custom has gone out of fashion, as in a great degree has the practice of dosing them with rne tea, sugar and butter, or stuffing them with soaked bread or gruel, long before their digestive organs were fitted for such heavy food. One more caution—no night caps; the little heads are plenty hot enough without artificial covering.

Nor should the cradle or bassinette in which the Infant sleeps be shut in too closely with curtains; good ventilation and plenty of fresh air is required, of course guarding against draughts and sudden changes of temperature. A hair, and next to that a cotton-wool mattress, is best for sleeping on, and it should be guarded against wet by a waterproof covering; light blankets should be used only, and sheets dispensed with, for a time at all events. The pillow should not be so large and soft as to allow the head to sink in, and thus generate heat and perspiration. After each washing, which should take place every night and morning, reaction should be promoted by gentle friction of the hand for a few minutes; allowing the child to stretch its limbs before the fire, although at a proper distance from it. The most scrupulous care should be paid to the state of the skin; as the matter which is conveyed away by this excretory organ would be likely, if retained, to act most injuriously upon the susceptible nervous system of an Infant. Another matter to be carefully attended to, in fat children especially, is the condition of the opposing surfaces of the skin in the creases and folds; troublesome sores, and much local irritation, acting prejudicially upon the whole system, are often the result of the chafing which here takes place if this be neglected; the moisture of such parts should, as before described, be absorbed by the starch powder, and a piece of soft linen spread with *Spermaceti Ointment*, and dipped in *Elder-flower water* should be inserted between the folds of the skin. The navel cord too, will require particular attention; that portion of it which is left attached to the child will separate from the navel, and drop off; it may be on the fourth or fifth day, or it may remain on until the twelfth or fourteenth; no attempt should be made to hurry this process; when it is completed, there is left generally just a puckered state of the skin in a good healthy condition; but sometimes there is bleeding and inflammation, which may result in ulceration. When there is much bleeding; the child most likely dies; attempts may be made to stop it by binding, and astringent applications, such as *Vinegar and Water*, or *Alum lotion*, but they are seldom of much avail. Sometimes a child's navel does not properly close, and then there is protrusion of the bowels as often as the child cries, or is in any way violently excited; in this case there should be placed, under the binder, a tolerably stout compress of linen so as to press lightly upon the aperture; this will be sufficient for the first

six weeks or so, but after that a more effectual remedy must be applied in the shape of a slice of cork, about the eighth of an inch thick, and sufficiently large to cover, and project some distance beyond, the aperture, padded to an inch thick with folds of linen, and affixed to two cross pieces of plaister as in the following figure:—



The plaister must be warmed, and stuck on the belly of the child, in the position here indicated; and the binder placed over it so that the cork covers and presses upon the opening of the navel. This apparatus should be renewed every two or three days; when there is inflammatory tendency, the cork will probably have to be removed, and linen pads only used for a time; or an air-pad of vulcanized India rubber may be substituted; (for the treatment of this case, see *Umbilical Hernia*).

When there is unusual fulness or swelling observed in the groin of a child, and especially if this be increased when it cries or exerts itself, rupture may be suspected, and an examination by a medical man should at once take place; (for treatment in this case, see *Rupture*).

Any malformation must, of course, be attended to by a surgeon. (See *Club Foot*, *Hare Lip*). A child may be "tongue-tied;" this arises from too great a prologation of the *frænum*, or *bridle*, which retains the tongue in its place: the surgeon's scissors will soon rectify this. *Nævus*, or "Mother's Mark," is not so easily got rid of; this may be of any size, from a scarcely perceptible point, to a blotch as large as half-a-crown; and it varies in colour from a bright red to a purple; it is composed of a network of capillary vessels which, if wounded, bleed very freely; it is sometimes cured by vaccinating on the spot, and sometimes the continued application of Iodine will remove it; the Compound Tincture applied night and morning being the best form; when the skin becomes sore, there should be a cessation for a few days. (See *Nævus*.)



In warm weather, an Infant might be taken out of doors when about a fortnight old; in winter it would not be prudent to expose it before it is at least a month or six weeks old, and then only if the day is fine, and for not more than twenty minutes; if an east wind prevails, the child should be kept in doors. Sleep should never be encouraged in the open air, nor should the glare of the sun be allowed to fall on its face; of course, the morning chill and evening damp should be avoided. When the Infant does go out let it be in the nurse's arms, *not in a perambulator*, that modern invention for the benefit of gossiping nurses, and for the destruction of infant life.

With regard to the *Diseases of Infants*, we may observe, with Dr. Marshall Hall, that the most frequent of these are—1, disorders of the stomach; 2, disorders of the bowels; 3, exhaustion; 4, febrile affections; 5, exanthematous diseases, or those which are attended with eruptions of the skin; 6, affections of the head; 7, diseases of the thorax, or chest; 8, affections of the abdomen, or belly.

Disorders of the stomach generally depend on improper diet; or they may be secondary, and the effects of a disordered or confined state of the bowels. They are often detected by acid or foetid eructations and breath, or by the unusually frequent regurgitation or vomiting of food.

Disorders of the bowels can never be mistaken or overlooked by an attentive nurse, the evacuations, in their number and appearance, being the perfect index to these disorders.

It must never be forgotten, that whenever the system has been exposed to sources of exhaustion, this condition may become, in its turn, the source of various morbid affections which are apt to be ascribed to other causes, and treated by improper, and therefore dangerous, measures. If the infant has had diarrhoea, or if it has been bled by leeches; or if, without these, its cheeks are pale and cool; and if, under these circumstances, it be taken with symptoms of affection of the head, do not fail to remember that this affection may be the result of exhaustion. This important subject seems to have been generally misunderstood.

Fever is sooner detected. In every such case it is not advisable not to tamper nor delay, but to send for the medical man, and watch the little patient with redoubled care and attention.

Especially examine the skin, hour after hour, for eruptions. It may be measles or scarlatina, &c. It will be especially de-

sirable to detect these eruptions early, and to point them out to the physician. Above all things, let not a contracted brow, an unusual state of the temper or manner, unusual drowsiness or wakefulness, or starting, and especially unusual vomiting, escape you.

Be alive to any acceleration, or labour, or shortness of the breathing, or cough, or sneezing, or appearance of inflammation about the eyes or nostrils. These symptoms may portend inflammation within the chest, hooping-cough, measles. Pain of the body, with or without vomiting; or diarrhoea, with or without a morbid state of the bowels, or of the discharges, ought also to excite immediate attention. One caution should be given on this subject: some of the most alarming and fatal affections of the bowels, like some affections of the head, are unattended by *acute* pain or tenderness; their accession, on the contrary, is insidious, and it will require great attention to detect them early.

Another view, and another mode of the classification of the diseases of Infants, full of interest, full of admonition is—1, as they are *sudden*; or 2, as they are *insidious*; or 3, as they are, in the modes of accession, intermediate between these two extremes.

Of the sudden affections, are fits of every kind, croup, and some kinds of pain, as that of colic; of the second class are hydrocephalus, or water on the brain, and tubercles in the lungs or abdomen, constituting the two kinds of consumption. Fits, again, are cerebral, and arise from diseases within the head, or from irritation in the stomach and bowels, or from exhaustion; or they are evidence of, and depend on, some malformation or disease of the heart.

Domestic treatment should never be trusted in such terrific affections as these; not a moment should be lost in sending for the medical man.

If anything may be done in the meantime, it is—1, in either of the two former cases to lance the gums; 2, to evacuate the bowels by the warm water injection, made more active by the addition of Brown Sugar; 3, and then to administer the warm bath. An important point, never to be forgotten in the hurry of these cases, is to reserve the evacuations for inspection, otherwise the physician will be deprived of a very important source of judgment.

In cases of fits arising plainly from exhaustion, there need be no hesitation in giving 5 drops of Sal Volatile in Water;

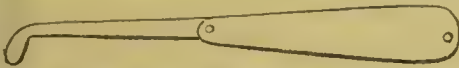
light nourishment may be added; the feet must be fomented, and the recumbent posture preserved.

In fits arising from an affection of the heart, the symptom is urgent difficulty of breathing; the child seems as if it would lose its breath and expire. In such a case, *to do nothing* is the best course; all self-possession must be summoned, and the Infant kept perfectly quiet. Every change of posture, every effort, is attended with danger.

Sometimes the attacks assume the character of croup; there is a crowing cough, and breathing; or there is difficulty of breathing, and then a crowing inspiration. The former case is generally croup; the latter is, in reality, a fit dependent on a morbid condition of the brain or spinal marrow, although it takes the appearance of an affection of the organs of respiration.

In either case it is well to clear the bowels by means of the slow injection of from a quarter to half a pint of warm water, with or without Brown Sugar; indeed this is the most generally and promptly useful of all our remedies in infantile diseases. To this the warm bath may always be added, if administered with due caution. For instance, it should not be continued so as to induce much flushing or paleness of the countenance.

But in all the affections of infancy, whether sudden or otherwise, the suspicion should fall upon the condition of the gum



and of the teething, and therefore it is desirable that the mother should make herself acquainted with the use of the gum-lancet, of which we here give a cut.

In many cases of convulsions, and other infantile affections, the use of this instrument affords the simplest, quickest, and readiest means of affording relief. In any case of this kind, should there appear to be danger from delay, let the mother carefully pass her finger along the child's gum, and if it appears to be unnaturally tumid at any particular part, let her apply the instrument there. If the affection be a fit it may be used, whether any part of the gum is hard and swollen or not, simply as the easiest mode of relieving the system by blood-letting. A gum-lancet should always be kept, but should this not be at hand, a common lancet or a sharp pen-knife will do. Make a free incision along the course of the gums, down to the teeth or socket, if there

be none; have the child's head held perfectly still, and be careful to guard against pushing the instrument too far back, so as to wound the throat. The operator should remember that perhaps the child's life depends upon the due performance of this duty, and nerve herself for the task. For more particulars on this head (see article on *Teeth* and *Teething*).

There are many diseases to which Infants are liable, which are very insidious in their advance, and present at first no very marked symptoms; but the watchful eye of the mother, or of a careful nurse, can generally detect the approach and progress of such—the countenance, manner, gestures, and motions of the child; the peculiarities of its cry; the state of its secretions and excretions; all afford indications of this, and anything new or strange in either of these, is sufficient to give the alarm and excite inquiry. If there is a falling off in the looks, colour, and flesh of the child, there is reason to apprehend the formation of tubercles in the lungs—the harbingers of consumption.

The medicines and remedial means which must be kept for nursing, are few and simple. Rhubarb, Magnesia, and Manna for aperients, with Castor Oil and Calomel, but the latter to be very rarely and cautiously used; a few Senna leaves also, for infusion, may be useful. Ipecacuanha, Powder and Wine, as an emetic; and for cordials, Brandy and Sal Volatile, the former, for exhaustion generally; the latter, when this is connected with pain and irritation of the bowels. What shall we say about anodynes, but simply to warn against their use? except under the direction of the medical man, they should scarcely ever be given; nevertheless, it may be prudent to have at hand a small bottle of Laudanum, of which, in violent and excruciating pain, a single drop may be given. As a carminative, Dill Water is the best, to be combined, where there is much flatulency, with Fœtid Spirit of Ammonia, this, with a little Carbonate of Soda for acidity of stomach; Aromatic Confection for loose bowels; and Poppies and Camomiles for fomentations, may complete the stock of medicines, which should be kept under lock and key, and only administered by the mother, or a nurse who can safely be trusted. But the warm bath, the injection, and the tooth-lancing, are the safest remedies, therefore, let the apparatus necessary for these, be always at hand and ready for use. We have thus, as we hope, indicated with sufficient clearness how to preserve the health of our Infant, or to detect the signs of disease, and to meet it when it comes. Every mother should be



ready to act on emergencies, but not ready to act on her own judgement, when professional advice can be promptly obtained; there is a pernicious habit of home doctoring of children, which cannot be too loudly condemned. Many a small spark of life has been quenched, and many a life cut prematurely short by supposed remedies, injudiciously administered.

**INFANTICIDE** (Latin *infans*, an infant, and *cædo*, to kill). The destruction of the child, either newly born, or in the course of parturition: when it is the destruction of the fœtus *in utero*, or in the womb, which is accomplished, we commonly call it *Fœticide*, or *Abortion* (which see).

The practice of Infanticide has prevailed to a fearful extent among foreign nations from very ancient times. Both among the Greeks and the Romans the exposure of infants to certain death was a common practice, and it is so still in China, in some parts of India, in South America, and Africa. In the islands of the Pacific it has prevailed to such an extent, as at times, when pestilence has contributed its influence, almost to depopulate them. Since the introduction of Christianity, however, there, as elsewhere, the revolting practice has in a great measure ceased. It was commonly the female children who were thus exposed, or those of the opposite sex who were deformed or sickly; and we can well understand that in rude and barbarous times, and among people whose chief occupations were war and hunting, why it might be thought expedient to put such incumbrances out of the way; and, in the absence of moral restraints and considerations of the value of immortal souls, of course nothing but expediency is thought of. In professedly Christian countries, however, where these higher considerations ought to have full weight, we fear that Infanticide is practised to a considerable extent: we speak not now of abortion, but of the wilful destruction of an infant after it is born; how a mother can so stifle her natural affections as to attempt this, one can scarcely imagine; but we know that it is done, notwithstanding the extreme severity of the law of most Christian countries, and the horror and abhorrence with which it is regarded: the incitements to the perpetration of the crime are—the trouble and expense involved in the keeping of the child, the shame and loss of reputation resulting from the discovery of its birth; and these motives with the dissolute and vicious are all-powerful. The establishment of foundling hospitals where the unhappy

fruits of illicit intercourse are received and cared for, has done much to diminish the crime of Infanticide; it is in France that these benevolent institutions most abound, and where they would seem to be most required, if we may judge from the ascertained fact, that in the capital of that country about one in five is the ratio of illegitimate births. One of the most difficult questions of medical jurisprudence is to establish the murder of a child lately born; it has first to be decided whether the infant was born dead or alive, and next whether its death was the result of violence or natural causes; if proved to have been alive at birth, and subsequently destroyed, either by violence or wilful neglect, the offence is murder, and may be visited by the severest penalty of the law. This consideration, if no other, should deter the abandoned mother from taking the life of her offspring, whatever may be the consequences of suffering it to live.

**INFECTION** (Latin *infectio*, to infect). The propagation of diseases by effluvia conveyed through the medium of the air. Infecting agents may be either specific poisons emanating from the breath or bodies of persons affected by particular diseases, such as small-pox, scarlet fever, hooping-cough, &c; or miasma resulting from the decomposition of animal or vegetable matter. The presence of some of these agents may be known by their peculiar odour, others only by their mischievous effects. It is held by some that noxious gases are not properly infectious agents, but that they act on the system so as to reduce the vital power, and render it predisposed to receive Infection, and it is questionable whether the reputation of acids, charcoal, chlorine, lime, &c., as disinfectants does not depend more on their property of decomposing the offensive gases which are often mixed in the atmosphere with the matter of Infection, than on any power which they possess over the matter itself. But, be this as it may, they should always be freely used in cases of fever and other infectious diseases; the most effectual of these is perhaps Chlorine, either disengaged in the form of gas, or applied in that of Chloride of Lime, or Zinc, sprinkled about the floor or on the walls of the apartment, or exposed to evaporate in shallow vessels. Dr. Henry gives it as the result of various experiments, that the infectious qualities of substances which cannot be conveniently washed may be sufficiently destroyed by exposure to a dry heat of 200° for not less than an hour. See *Contagion, Disinfectants*.

**INFIBULATIO** (Latin *infibulo*, to buckle

on). An affection in which there cannot be a retraction of the *Prepuce* (which see).

**INFILTRATION** (Latin *infiltratio*). The infusion of fluids into the cellular tissue of organs; this may be of four kinds: 1st. *Purulent*, of the nature of pus, such as occurs in the advanced stage of pneumonia; 2nd. *Sanguineous*, bloody, as in apoplexy, hæmorrhage; 3rd. *Serous*, as in Dropsy of the kind called *Anasarca* (which see); 4th. *Tuberculous*, which may be either grey or gelatiniform: this is the result of tubercles on the lungs or elsewhere.

**INFIRMARY**. An hospital or place where sick or infirm persons are lodged and nursed, free of expense to themselves or friends. This is a charitable institution supported, generally, by public contributions, or by the endowment of some benevolent person; there are many such in England, and the remarks which we made respecting hospitals will apply equally to them.

**INFIRMITY** (Latin *infirmitas*). Weakness, debility; an unsound state either of body or mind, commonly applied to that which is the result of old age, and rather to chronic than to acute and violent diseases; see *Weakness*.

**INFLAMMABLE AIR**. Formerly called Phlogiston, or Phlogisticated air. *Hydrogen Gas* (which see) and *Gases*.

**INFLAMMATION** (Latin *inflammo*, to burn.) This is a state or condition of the whole, or part of the body, whose external characteristics are pain, heat, redness, and turgidity. We generally find it expressed by the Greek termination *itis*, as Inflammation of the arachnoid, *Arachnoiditis*; of the bladder, *Cystitis*; of the brain, *Encephalitis*; of the intestines, *Enteritis*; of the iris, *Iritis*; of the kidneys, *Nephritis*; of the liver, *Hepatitis*; of the peritoneum *Peritonitis*; of the pleura, *Pleuritis*; of the stomach, *Gastritis*; of the tongue, *Glossitis*; of the uterus, *Hysteritis*; of the veins, *Plebitis* (all of which see). We speak of susceptibility to Inflammation as—1, *Original*, or innate; 2, as *Acquired*, as from habits, climate, &c.; and we distinguish the kinds of Inflammation as, 1, *Healthy*, or adhesive, that which disposes the parts to heal or cicatrize; 2, *Unhealthy*, that in which there is a contrary disposition to erosion, sloughing, ulceration, &c; 3, *Common*, induced by common causes, as blows, incisions, punctures, &c.; 4, *Specific*, induced by inoculation, as syphilis, vaccina, variola, &c.; 5, 6, and 7, *Acute*, *Sub-Acute*, and *Chronic*, in reference to its stages of advancement; 8, *Phlegmonous*, that which is circumscribed and disposed to suppurate; 9, *Erysipelatous*, that which

is diffused and less disposed to suppurate; 10, *Gangrenous*, that which leads to mortification or the death of a part.

Inflammation, again, may be either general or local, affecting the whole system, as in cases of fever, &c., or confined to a particular part or organ, as of the chest, or of the kidneys.

There are few diseases that do not present, at some period during their course, inflammatory symptoms, and in some they may be regarded with satisfaction rather than alarm, as indications of a healthy action; thus, in wounds and ulcers we would rather have redness, swelling, and a considerable degree of pain, than the livid, purplish look, and dull, dead sensation, which shows that there is a want of vitality; the reparative processes of nature in the animal frame are mostly the result of inflammation, which, however, becomes exceedingly dangerous when it runs high, and baffles the skill of the medical man to subdue it.

An attack of inflammation may terminate in any one of three ways—viz., by *resolution*, *suppuration*, or *mortification*. By the first, which is most common, we understand a gradual subsidence of the swelling, a diminution of the heat, pain, and redness, and an abatement of the fever—in short, a gradual return to the natural state and condition of the part affected; the second termination is when the inflammatory action goes on to the formation of pus; then we have a red, shining swelling, growing more and more so, and becoming soft in the centre, from whence, in due time, either through an artificial or a natural opening, the matter makes its escape (see *Abscess*); the third, the least common and most dangerous termination, is *Mortification* (which see). The first of these is of course the most desirable to be brought about, and where it cannot be, effusion of the watery part of the blood is pretty sure to follow; internally, we see this, in pleurisy and water on the brain; externally, in blisters, burns, and scalds.

The *causes* of Inflammation are as various as the diseases which properly come under the head of inflammatory affections; when general, affecting the whole system, it may originate in some specific infection, or from an exposure to wet or cold; and this latter may be the case, when the disease is confined to an internal organ, as the lungs or their investing membrane, the pleura, &c.; Inflammation of the bowels may arise from taking strong purgative medicines; and of the bladder from any thing which unduly stimulates or excites that organ; excessive



indulgence in alcoholic drinks will often set up inflammatory action in the brain, and all matters which act as poisons, introduced into the system, owe their mischievous results in a great measure to this potent agency; skin diseases are all of an inflammatory character; and these are mostly contagious, or produced by contact. Any external injury, such as a cut, bruise, or burn, is attended with more or less of Inflammation, and, in short, there are few forms and manifestations of disease into which this does not enter in one or other of the stages.

Of the general *symptoms* of Inflammation we have already spoken, but something more should be said on this head; besides, the more marked symptoms, such as heats, pain, thirst, redness, accelerated pulse, languor, shiverings, and other active febrile symptoms; we may notice that when the inflammatory action is confined to a particular organ, there is, simultaneous with the above, increased pain on the slightest pressure, so that even the clothes cannot be borne on the part affected; this is especially the case in Peritonitis or Inflammation of the covering membrane of the bowels, in which the patient often lies on his back, with the knees drawn up so as to keep off the weight of the bed coverings.

As to *treatment*, we can only here speak of that which is general; that which is specific or peculiar being described under the heads of the several inflammatory diseases or injuries, and of the organs liable to Inflammation, the manifestations of which in children are generally croup, whooping-cough, certain skin diseases, and hydrocephalus, or water on the brain. The young appear to be especially liable to inflammatory affections, owing probably to their rapid growth, which calls for a correspondingly quick and full supply of blood; and, of course the vigorous and healthy are for this reason more liable to such, than those in whom the circulation is weak and slow; hence the greater difficulty of treating fevers, &c. in children of full habit, and the necessity of guarding such from colds and other exciting influences. With children, general blood-letting is seldom resorted to, but leeches are among the most valuable auxiliaries of the medical man; unless the patient is thin and weakly they may be applied with perfect safety; but it should ever be borne in mind that the young have not that power of reaction which adults possess, and that it is not safe to carry the reduction by leeching, cold applications, and expectorants, cathartics, diaphoretics,

and diuretics, so far as with them, although all these may, and should be resorted to, if necessary.

With adults, the treatment of Inflammation should be bold and decided, especially if they be of strong constitution, and full habit; here we may bleed, and bleed freely, and practice other measures of depletion; the object being to relieve the congested vessels of the part attacked, to reduce the action of the heart, and lessen the nervous sensibility: low diet, aperient medicines, perfect quiet, and an avoidance of all excitement must be the rule in this case; promote perspiration, evacuation of the bowels, and flow of urine; by this means the impurities in the blood, and secretions, which always exist when disease attacks the system, are got rid of, and the way is prepared for a healthy action. Bleeding alone will not effect the desired object; for although this more speedily than anything reduces the arterial action, yet it is followed always by reaction, resulting in a greater flow of blood, unless some other depressing influence is brought to bear on the organ of circulation; therefore administer Tartar Emetic and Calomel, combined generally with opiates, refrigerants, and sudorifics, such as Opium, Digitalis, Hydrocyanic Acid, Ice, and cold lotions. When these have produced the desired effect, resort may be had to stimulants applied to the skin, so as to excite the capillary vessels, and also to a more nutritive diet, and cordial tonics: but all this must be done very slowly and carefully, or inflammatory action may be again set up, when the patient will be in too weak a state to bear further reduction. For forms of administration of the several medicines given in Inflammation, and other medical means to be adopted, see heads of diseases, and organs above referred to.

**INFLAMMATORY CRUST.** The buffy coat which appears on the crassamentum of blood, drawn when inflammation is present in the system, or when the patient is pregnant.

**INFLAMMATORY BLUSH.** This is a kind of non-contagious erysipelas, presenting red patches of an irregular form upon the skin; generally it is of short duration, but sometimes becomes continuous and troublesome, passing into pimples and small tumours, or into smooth shining spots, bounded by red margins, and appearing mostly on the breast, face, or arms. One variety shows itself in red patches on the fronts of the legs, with hard painful lumps assuming a blueish tinge after several days; this is peculiar to young women. The *red gum* and *tooth rash* of children are of this nature. See *Erysipelas*, *Erythema*.

**INFLATED** Latin *inflō*, to blow into). The state of the stomach and bowels when distended by flatus or wind. See *Flatulence*.

**INFLUENZA.** This is an Italian word signifying influence, supposed of the stars, or more probably of a peculiar state of the atmosphere, and it has been applied to an epidemic febrile catarrh, termed by the French, *la grippe*; formerly it was termed *coccoluche*, because those who suffered with it wore a close cap on the head. It has lately been very much the fashion to call any kind of cold which is accompanied with catarrhal symptoms, Influenza; but this, in nine cases out of ten, is a misnomer; the true disease seldom occurs except as an epidemic, attacking many persons at once; it comes on quite suddenly, and its symptoms are those of a general fever; there is great prostration of strength, generally showing loss of appetite, heat and thirst, cough and difficulty of breathing, owing to the air valves and bronchial passages being clogged with mucus; there is also running at the nose and eyes, weight across the brow with throbbing pain, and great depression of spirits. The febrile symptoms do not commonly last more than four or five days, sometimes but one or two, but the cough generally remains for a considerable time, varying according to circumstances, such as exposure to cold or wet, predisposition to cough, &c.

With the strong and healthy this is not a dangerous disease, but aged or weakly persons are frequently carried off by it. In the former case but little medical treatment is required. Keep the patient in bed, and let the temperature of the room be warm and equable; open the bowels with a gentle aperient, such as Rhubarb and Magnesia, or Senna Mixture, and follow this up with weak Wine-whcy, or some warm diluent drink, in a pint of which a grain of Tartar Emetic and a drachm of Nitrate of Potash has been dissolved; give a wine-glass full of this about every four hours. It is not generally safe to practice much depletion, but where there is great difficulty of breathing, and irritation of the throat, a few leeches may be applied just above the breast bone, in the hollow of the neck. Stimulating liniments may also be applied to the chest, and Mustard poultices, but blisters are scarcely to be recommended. Hot fomentations may also be useful, and medicated inhalations, such as a scruple of powdered Hemlock or Henbane, sprinkled in the boiling water, from which the steam ascends into the throat. The fresh Leaves of the above plants may be used, or a drachm of the Tincture, if these cannot be procured.

When the fever is subdued, if there is still cough and restlessness, a 5-grain Dover's powder may be given at bed-time, or  $\frac{1}{4}$ th of a grain of Acetate of Morphine, with a 5-grain Squill Pill, for the cough if required. If there is great feebleness, tonics must be administered; Infusion of Calumba, Cascarella, or Gentian, with Carbonate of Ammonia; 1 ounce of the former with 5 grains of the latter, three times a day, with a mildly nutritious diet—Broths, Arrowroot, Sago, and a small quantity of Wine. Such is an outline of the course to be pursued in most cases of Influenza which really require medical treatment at all; generally warmth, rest, and good nursing, will do all the business. Should the cough be very obstinate, and resist all efforts to remove it, change of air will generally prove effectual, and this is beneficial in most cases. See *Catarrh*, *Colds*, *Diaphoretics*.

**INFRA** (Latin for beneath). Hence we have the terms *Infra-orbital*, below the orbit, applied to a foramen, a nerve, &c.; and *Infra-spinatus*, below the spine, applied to a muscle of the scapula.

**INFUNDIBULUM** (Latin *infundo*, to pour in). A term applied to a small cavity of the cochlea, at the termination of the modiolus. (See *Ear*.) The membranous tubes which embrace the mammillæ of the kidney, and receive the urine from them, are termed calices, or cups, and *infundibula*; a funnel-shaped ligament in the spine, which joins the first vertebra to the occiput, has been called by Winslow *infundibuliformis*.

**INFUSIBLE** (Latin, *in* not, *fundo*, to pour), that which cannot be melted or fused so as to become fluid.

**INFUSION** (Latin *infundo*). The operation of pouring water, hot or cold, on vegetable substances, to extract their soluble and aromatic, or other principles. The beverage prepared from the leaves of the Tea-plant is the commonest example which we can adduce of a watery Infusion, to which, when made from other plants, it is not unusual to give the name of tea. Thus we hear of Sage and Camomile, and other teas. Most plants which possess medical properties are sometimes administered in the form of Infusion, the common method of preparing which is to pour boiling water upon a certain prescribed quantity of the substance, cover up, and allow to stand until cold before straining for use.

*Infusion Jugs* are made with a cover, and strainer across the spout; they are of brown or white ware, sometimes straight, but often in the ordinary form of a jug as here represented; it is a cheap and useful article, and



should be found in the cupboard of every good housewife; the quart will be generally



found to be the most convenient size. When this is not at hand, an earthenware teapot,



or any jug with a plate over the top to confine the steam and prevent too rapid cooling will answer the purpose.

The chief objection to Infusions, made in the manner above indicated, is their tendency to spoil rapidly, some of them, in warm weather, becoming unfit for use in 24 hours, or less. A successful attempt has recently been made to obviate this objection by preparing concentrated Infusions with cold water in a vacuum; but with these we cannot depend upon uniformity of strength, and they have frequently so much spirit in them that they are more like tinctures.

"Concentrated infusions," says Dr. Edwards in a Report of the Liverpool Pharmaceutical Society, "are, at the present time, much in use, especially amongst medical men who dispense their own medicines; and from the opinions he had heard them express upon the subject, he believed their experience would go far to justify their use. At present there was no recognized formulæ by which any of them were prepared; they all varied in strength; indeed, most makers allowed that their preparations were, when diluted, really stronger than those of the Pharmacopœia. They all contained spirit, varying in quantity from one-sixth to one-

sixteenth of their volume. Infusion of rhubarb might be taken as an example of the many formulæ used; some makers used hot water, others cold; some filtered when cold, and others while hot—variations which would make a material difference in the product."

The commonest and most useful Infusions are those of Buchu, Calumba, Cascarilla, Camomile, Cloves, Gentian, Horse-Radish, Linseed, Orange-peel, Quassia, Rhubarb, Roses, Senna, and Valerian; the proportions necessary for preparing which, their doses, and therapeutical effects, will be found under their several heads. There are many plants the active properties of which are not extractable by simply infusing in hot water, and of these it is usual to make *Decoctions* (which see).

INGESTA. (Latin *ingero*, to heap in). Under this general head, we comprehend all that is taken into the stomach, whether as food or medicine, but common usage limits the meaning of the term to food, whether in a solid or liquid form. See *Aliment, Diet, Drinks, Food, Nutriment, Regimen, &c.*

INGUINAL (Latin *inguis*, the groin). Relating to the part between the abdomen and the thigh; hence we have *Inguinal Glands*, those situated in the groin, these are *superficial*, between the skin and aponeurosis; and the *deep-seated*, situated under the latter: hence too, we have *Inguinal Hernia* (see *Hernia*), *Inguinal Ligament*, that commonly known as Poirparr's, and the *Inguinal Ring*. Surgeons frequently speak of the groin as the *Inguinal region*.

INHALATION (Latin *inhulo*, to inhale). This term signifies the act of drawing the air into the lungs, and also to the volatile substances which are mingled with the air; in the latter sense it comprehends two classes as 1st, dry fumes, or perfumes, in Latin *suffitus*; and 2nd, watery vapours, Latin, *halitus*.

In modern medical practice, the administration of remedies by Inhalation, is used to a considerable extent, although not nearly so much as it was some years since; it has its peculiar advantages, and will probably always retain a place among remedial measures. There are some anæsthetic agents such as Ether and Chloroform, whose peculiar effects are only produced in this way, and there are narcotics, astringents, and other remedies for diseases which can only be applied to certain parts, to relieve local constriction, irritation, and the like. Besides the anæsthetics above mentioned, the agents chiefly used in Inhalation, are vapour

from hot water, either simple or medicated, Chlorine gas, the fumes of Iodine, and of Mercurials. In chest affections, such as consumption, where there is spasmodic cough, great relief is frequently afforded by the vapour of Boiling Water into which about 12 drops of Laudnum, and 6 of Chloric Ether have been put. In slight cases of laryngitis and bronchitis, and in sore throat, medicated Inhalations made with Poppy heads, Hops, Hemlock Leaves, or other anodynes, will frequently be of service. Medicated infusions or decoctions are the only Inhalations which can be safely recommended for domestic use; no others should be employed, except under the direction and superintendence of the medical adviser; one of the commonest and most useful forms is this:—take 3 or 4 Poppy Heads bruised, and a handful of Marsh Mallows, boil them in a quart of water for an hour, strain, and put the decoction steaming hot into a basin, over which invert a tin funnel, the pipe of which put into the patient's mouth, and let him inhale the steam: we have seen much relief afforded by this means in cases of quinsy and other throat affections; there has been a rapid relief of the overloaded vessels, which have been stimulated to increased action, whereby the circulation has been carried on more rapidly and effectually: hot Vinegar and Water, or Plain Water, may also be used in the same way with decided advantage. In asthmatic complaints, dry Inhalations, such as the fumes of Stramonium, or Tobacco, smoked in a pipe, is often advantageous, and toothache is sometimes relievable by placing Henbane seeds on a pan of hot metal, and allowing the vapour arising from thence to pass into the mouth; this, however, can scarcely be called Inhalation, as it is not necessary nor, indeed, desirable to breathe the vapour.

With regard to Chloroform Inhalation, so many deaths have occurred under the influence of this anæsthetic, that the advisability of its application is a disputed point with the profession. In hospital practice it is generally administered in all difficult and painful operations, and we are inclined to think that it should be so. We have here a means of lessening human suffering to a very great extent, and the risk, that the death of a patient will ensue from the shock, caused to his system by the intense and protracted suffering of an operation, is certainly as great as that incurred by the administration of Chloroform, if not greater. This observation will also apply with still greater force to cases of difficult and dangerous parturition; in common cases we

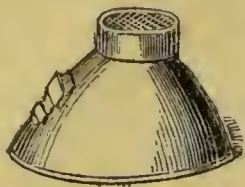
should scarcely recommend its administration. Mr. Coates, of the Salisbury Infirmary, in a work entitled "Chloroform, and its Safe Administration," states that by the use of Snow's inhaler, and the addition of a small moveable funnel introduced into one of the holes through which the air enters the chamber which contains the Chloroform, he is enabled to administer the anæsthetic in precise doses. He finds 15 minims every minute the safest and most effectual dose. Sometimes one dose is enough; but generally from four to six doses, making in all from one drachm to one drachm and a half, produce the necessary insensibility to pain. Mr. Coates acts upon the principle which might be more generally followed with advantage, of employing the smallest dose capable of producing the desired result. When the patient is weak, or alarmed, he gives a little undiluted brandy a few minutes before commencing the Inhalation. With regard to the comparative mortality before and since the introduction of Chloroform, Mr. Coates shows that at the Salisbury Infirmary, for six years previous to, and six years after, the introduction of this anæsthetic, the diminution of mortality has been equal to 16 per cent.

The cases, in which a non-professional person would be justified in employing so potent an agent as this, are so rare, that we scarcely deem any directions for its use are necessary; still, as the alternative might arise, of doing this, or giving up a victim to death, it will be as well to state the method of application, which is most simple, and easily adopted:—Take a white handkerchief, folded three or four times, and pour on it about a teaspoonful of Chloroform, then apply it immediately over the mouth and nose of the patient, not pressing it so tightly as to exclude the admission of a little atmospheric air; let two or three deep inspirations be taken, and then, if insensibility is not produced, without entirely removing the handkerchief, add about half a teaspoonful more of the Chloroform; this may be repeated several times, if necessary. A slight inhalation of this agent will be likely to relieve a person suffering from neuralgic pains, but great care must be taken not to carry it too far.

Various forms of Chloroform and other inhalers have been invented. We give cuts of two of them. The first is Pratt's Chloroform Inhaler; it is of simple construction, and well adapted for the intended purpose. The second is Maw's Improved Inhaler, with double valves for inspiration and expiration. See over.



The Inhalation of steam, by a person confined to bed, may be managed by simply putting some bran in a basin, pouring some



boiling water on it; and then, leaving the patient in a sitting position, with the head bent down, place the basin under his face



and envelope the whole in some covering which will confine the vapour, which must thus enter the mouth and be drawn into the lungs.

Inhalation of that which is hurtful or beneficial, is constantly going on with us, whether we are aware of it or not; in crowded cities we breathe all sorts of poisonous gases; in marshy and fenny districts we suck in miasma; in factories, where bleaching is carried on, chlorine enters the lungs, and thence into the circulation; and by the seaside, iodine; and, breathing an atmosphere impregnated with such medicinal agents as these two last we often doubtless receive more benefit than if we took them in full doses.

**INHUMATION** (Latin, *inhumo*, to inter). This term has been applied to the act of placing a patient in an earth bath, that is, burying him up to the neck in fresh earth; a barbarous and antiquated method of treating certain diseases, which is now scarcely ever practised in civilised countries, and therefore we need not occupy our space with a detail of the mode of operation and supposed effects.

**INION** (Greek for the nape of the neck, derived probably from *inos*, a sinew). The ridge of the occiput; hence we have the term *inial*, applied by Barclay to that aspect of the head which is toward the *inion*; the apposite aspect is called *ante-inial*. See *Neck*.

**INJECTION** (Latin, *injicio*, to cast in). A fluid intended to be thrown against, or into a part of the body by means of a syringe or other apparatus. Under the head of *Clyster* will be found the formulæ of the various compositions employed for this purpose; those which are intended for the bowels we commonly speak of as *Enema*; those for the urethra or other parts as *Injections*: these terms are, however, in general employed indifferently, to signify one or the other, as it happens.

*Injecting apparatus* are of various kinds; of those which assume the form of a syringe we shall give some account under that head; for domestic purposes a pig or cow's bladder, with a common bone pipe tied firmly on to the open part, so as to prevent the escape of the liquid with which it is filled, except through the pipe, is commonly used; an improvement upon this is the Indian-rubber bag, with a neatly turned pipe of ivory or brass, to which is sometimes added a shield and stop-cock. At page 49 of this volume is shown a cut of a simple and cheap form of injecting apparatus; it is formed chiefly of vulcanized Indian-rubber, and is capable of self-application.

**INNERVATION** (Latin *in*, and *nerus*, a nerve). The properties or functions of the nervous system, or, as it has been otherwise expressed, "the nervous influence necessary for the maintenance of life and the functions of the various organs." Very commonly the word has two very opposite meanings, viz., a state of weakness, and the act of strengthening (see *Nerves*).

**INNOMINATUS** (Latin *in*, not, and *nomen*, name). Nameless; hence we have, 1, *Innominata arteria*, the branch given off to the right by the arch of the aorta, which subsequently divides into the carotid and sub-clavian arteries; 2, *I. nervi*, a former name for the fifth pair of nerves; 3, *I. os*, or, as it is often put, *Os innominata*, a bone composed of three distinct portions, viz., the *Ilium*, or Haunch-bone; the *Iscium*, or Hip-bone; and the *Os pubis*, or Share-bone.

**INOCULATION** (Latin *in*, and *oculus*, an eye). The insertion, intentional or accidental, of a healthy or morbid virus, as the vaccine or syphilitic, into the system. We most commonly apply this term to the in-

troduction of vaccine virus, inducing *Cow-pox*, as a protection against *Small-pox* (both of which diseases see, also *Vaccination*).

**INOSULATION** (Latin *in*, and *osculum*, a little mouth). The union of vessels, generally considered synonymous with *Anastomosis*; which term, however, properly signifies union by minute ramifications, the former term meaning a direct communication by trunks. See *Arteries*, *Veins*.

**INQUEST** (Latin to seek into, from *quæro*, to question). In English law, this is an inquiry by a jury of twelve persons, empanelled by the sheriff for the purpose of hearing evidence, and trying or ascertaining any fact in a civil or criminal cause; it is one of the greatest safeguards of human life in this country, and is, or should be, always resorted to in cases of sudden and unexpected death. As a check to secret poisoning, or murderous violence of every kind, we should value this peculiar institution of our native land very highly, and afford every possible facility for its being fully and efficiently carried out: to this end, those who are first at the discovery of a person found dead, or the scene of a murder, or at the deathbed of a person who expires without there being apparently any good and sufficient natural cause, should note carefully every circumstance, and be prepared to give evidence in a clear and distinct manner. It is a somewhat anomalous condition of things that the coroner, who is the presiding judge on an Inquest, should be generally a man of law, and not of medicine. There are so many medical points involved in all inquiries of the kind, that surgeons, one would think, would be the fittest persons to conduct them.

**INSANITY** (Latin *in*, and *sanus* sound). Deranged intellect or madness. Some writers on this dreadful malady have classified it under four distinct heads, viz.:—1, *Moral Insanity*, or unsoundness of mind, which consists in a morbid perversion of the feelings, inclinations, temper, and natural disposition, without any remarkable intellectual disorder or confusion of the reasoning faculties. The patient, in this case, may be quite free from any insane delusion or hallucination. 2, *Intellectual Insanity*, which may be general, or only partial, in the latter case we call it *Monomania*; in the first instance we have confusion of the intellect on every subject; in the last, it may be quite clear on all subjects save one. 3, *Mania*, Raving Madness; here we have the understanding completely darkened, or illuminated only by fitful gleams of light;

the patient talks absurdly on every subject, and commits all sorts of mischief to himself and others, for which he cannot be held accountable. 4, *Incoherence*, or Dementia, sometimes called Infatuation. The characteristics of this form of mania are perpetual restlessness, diminished sensibility to external impressions, and complete forgetfulness of all moral restraints, so that repeated acts of extravagance are committed, unconnected ideas and emotions flow through the mind in rapid succession, or with intervals between them which appear like perfect blanks.

The chief fact which we cannot help observing in all cases of Insanity is, the existence of a strong mental delusion—the belief in something which has no real existence, on which belief the patient acts. Some of these delusions which possess the minds of the Insane are in themselves harmless, and do not interfere with the performance of the social duties of life, therefore it is not necessary to place the person possessed by them under restraint.

Although Insanity is purely a mental disease, yet it often proceeds from physical causes; some derangement of the animal functions acting upon the nervous system, of which the brain is the chief seat and centre. In most cases where it comes on, there is some preceding disorder by which the general health is materially affected; there is, probably, failure of appetite, restless nights, constipated bowels, and an excited and irritable state of the mind; fretfulness, peevishness, and, perhaps at times, little whimsicalities and eccentricities of conduct, with great fluctuation of spirits. These symptoms will sometimes remit for a time, and the patient regain his usual health and spirits; but oftener they become gradually more and more marked and perceptible, until there is no longer any doubt of the nature of the malady, which may become confirmed in one or other of the forms above indicated.

Sometimes Insanity comes on quite suddenly, without any warning whatever, and this is most usually the case where it is caused by strong mental emotion, such as love, joy, grief, fear, &c., acting upon a weak brain; or where there is hereditary predisposition—a not uncommon cause of the overthrow of reason. Bad living and impure air, like that common to the poorer class of dwellers in crowded cities, has a tendency to produce it; we have heard it stated that the eminent psychologist, Dr. Conolly has declared, as the result of his enquiries, that the fact which stands most



prominently out, is the certain tendency of bad and insufficient food in the parents to produce Insanity or Imbecility in the offspring: this is a fearful fact to contemplate, when we know how large a proportion of our poorer population are ill and underfed. How shall we check the increase of Insanity? is a question which has much engaged the attention of the learned and the benevolent. Education will not do it, for the educated mind becomes insane sooner, perhaps, than the uneducated; in uncivilized nations mad persons are very rare indeed. The crosses and disappointments of a life of trial and struggle are fruitful causes of Insanity, yet men who are at ease on their possessions do not always escape it. In the mad race after wealth, we see both winners and losers become themselves mad. Even religion will sometimes throw the mind off its balance; but that we are inclined to believe is commonly a spurious sort of piety which leads to lunacy. Nothing is so likely to keep the mind staid and settled, amid the storms and tempests of life, as a firm trust in a superintending Providence, and an assurance that let what will happen here, hereafter will come a fulfilment of the blessed promise of peace and eternal rest for the weary and heavy-laden. One means of checking Insanity, then, must undoubtedly be the spread of pure and undefiled religion; another, the improvement of the physical condition of the poor, and also their intellectual improvement; for although it may be true that education does not directly lessen the liability to Insanity, yet it does so in an indirect manner, by infusing among them higher tastes, and weaning them from habits of intemperance, and sensual indulgences which weaken the body, and render the mind an easy prey to insane fancies and delusions. Among the means of lessening this fearful malady, too, we must reckon the prevention of the marriage of individuals predisposed to it, by inheritance or otherwise. Such should feel, that to avoid propagating their species is a duty which they owe to society.

With regard to the *treatment* of Insanity, this naturally resolves itself into two divisions, the medical and the moral, and the first may be very briefly disposed of. When the malady proceeds from physical causes, such as organic disease or functional derangement, we have simply to ascertain from whence the mischief proceeds and act accordingly; the only general rules that can be laid down are that the increased vascular excitement and inflammatory action, which is common in the first

stages of mania, must be reduced by depletion, low diet, the usual aperients, and, if need be, refrigerant applications. When there is nervous debility and prostration of strength, a strengthening diet is required, but stimulants, as a rule, should be avoided; opiates, to soothe the brain, may be useful; fresh air, cleanliness, and exercise, is sure to be in all cases.

In the moral treatment of the Insane, a great and happy change has taken place within these few years, and with the most beneficial results; chains and corporeal punishments are now altogether discarded; and straight waistcoats nearly so. The patient, it is true, is secluded from society for his own safety and that of others, but this removes him from the influence of those circumstances which produced the disorder. Occupation and amusement for the mind are now provided for him, and, if there is a spark of reason left, it has every chance of being fanned once more into a flame; he is treated with kindness and confidence, and gently, though firmly restrained, when restraint is necessary. If he makes any progress towards convalescence, he is separated from those who are hopelessly Insane, so as not to be dragged back again into the abyss of madness from whence he is making efforts to escape. We have now a classification of the inhabitants of lunatic asylums, and every thing is done which science and benevolence can suggest, to render their inmates comfortable and contented, and to restore to society such of them as are recoverable. The chance of recovery depends greatly on the complication, or otherwise, of Insanity with other diseases; also on the form which it assumes, the period of its duration; the age and sex, and constitution of the patient. The mean duration of cases which terminate favourably appears to be from five to ten months; after the latter period there is little or no hope of recovery. The most favourable age is shown by statistics to be between the 20th and 30th years. In advanced life Insanity is generally permanent, and with the young it usually depends on some affection of the brain which causes an early death. It is a curious fact that Insane women are more easily cured than men; we have not seen it so stated, but should imagine that the female sex, on account of their greater excitability of temperament, are most frequently visited by the malady; and this also, too on account of uterine affections and irregularities, which may be numbered among the exciting causes of Insanity (see *Madness*).

INSERTION (Latin *insero*, to implant).

The attachment of a muscle to the part it moves. Compare *Origin*.

**INSOLATIO** (Latin *in* and *sol*, the sun). A term sometimes made use of to denote that exposure to the sun which is made in order to promote the chemical action of one substance upon another. The term has also been applied to the influence of the sun's rays upon the head, commonly called a Sun Stroke. See *Coup de Soleil*.

**INSOLUBILITY** (Latin *in* and *solvo*, to loose). A property resulting from cohesion or holding together of the particles of any matter, so that the substance resists solution, or passing into a fluid state.

**INSPIRATION** (Latin *inspiro*, to inhale). That act of respiration, or breathing, by which the air is drawn in or inhaled; compare *Expiration*. See *Air*, *Breath* and *Breathing*, *Lungs*, &c.

**INSTINCT** (Latin *instinctus*, inwardly moved). This is a natural impulse to certain actions which animals perform without thought or deliberation, and without knowing *why* they do it. It would not fall within our province to discuss here the much disputed question of Reason and Instinct, we have only to notice the operations of the latter faculty as far as it regards the physiology of health and disease in the human body, and with this object in view, we notice first the

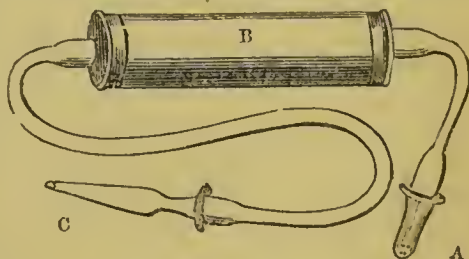
*Instinctive Motions*. Those involuntary actions which are excited mediately through the nerves, being part of the reflex functions of these organ. The principal of these motions are—The closure of the eyelids and the glottis; the act of sucking, swallowing, and closing the hand to grip or hold anything; the action of the sphincter and other muscles; inspiration, as an involuntary act; sneezing, vomiting, &c. All these are purely instinctive motions, and take place in the unconscious child as well in the reasoning adult, on the application of the appropriate stimuli.

It is the opinion of some medical authorities, that the desire for particular and out-of-the-way kinds of food, which is sometimes expressed by invalids, and those recovering from fevers and other sicknesses, should be gratified, as they consider it instinctive; this agrees with the popular notion, that what a sick person fancies will never hurt him; a dictum, however, which must be received with reservations.

**INSTRUMENTS**. It is, no doubt, a question which sometimes arises in the minds of those who are preparing for family cares and duties—What kind of surgical instruments am I likely to require?—and especially would this be a matter of grave

consideration with one who was about to emigrate, to a partly-unsettled country, where such articles of utility could not be procured when wanted. We therefore think it advisable to give a list of those which are most available for the means and operations for the relief of pain and sickness, which every one might be called upon to use:—A pair of Lancets, in a case, and a Gum Searifier, like that represented at page 39; also a Vaccinating Lancet, or a Weir's Vaccinator; two pairs of Scissors, one with sharp and one with blunt points; a silver Caustic Case; a 2-ounce Syringe, and an Enema apparatus, or, better still, two of these; one on Read's principle, in a case, with long pipe, which might be used as a stomach-pump, and one with compressible elastic bag.

The form of Enema here given will be found most convenient: A is for insertion in the fluid; B the barrel which is grasped



by the hand, and into which the fluid rushes when the pressure is withdrawn, and from which it passes, when pressure is again applied, through tube and pipe C, into the anus.

A pair of plain, and one of spring Forceps, for securing a divided artery; also Tooth Forceps. Then it is desirable, especially for emigrants, to have a Tentaculum, a Tourniquet, a shut-up Bistoury, or knife; some curved needles, like those used by surgeons, with some silk to use with them; five or six elastic gum Bougies, of different sizes; and a silver Probe. Of course as much practical information with regard to the use of these as possible should be obtained; for it matters little how perfect the instrument may be, if there is no skill in the hand that guides it. (See *Medicine Chest*).

**INSULATION** (Latin *insulus*, an island). A term applied to a body containing electrical fluid, and surrounded by nonconductors, so that its communication with other electrical bodies is cut off. See *Electricity*.

**INTEGRAL PARTICLES** (Latin *integer*, entire). The most minute particles into which matter can be divided without resolution



into its constituent elements. Thus, powder marble as fine as you may, all the minute grains will be of like property and composition; but if a chemical change is effected, so that the calcium, the carbon, and the oxygen, of the marble are separated, we then have the elementary or constituent particles.

**INTEGUMENTS** (Latin *in*, and *tego*, to cover). The coverings of any part of the body, as the cuticle, &c. The common integuments are the skin, with the fat and cellular membrane adhering to it; also particular membranes which invest certain parts, as the tunics or coats of the eye. See *Skin*, &c.

**INTERLUNUS MORBUS** (Latin *inter*, between, and *luna*, the moon). An old name for *Epilepsy*, which was so called because persons born during the wane of the moon were supposed to be particularly liable to that disease.

**INTERMITTENT** (Latin *inter*, between, and *mitto*, to send). Occurring at intervals; generally applied to a class of *Fevers*, (which see). From the same Latin root, *inter*, come the terms, 1st—*Inter-articular*, a designation of the cartilages which lie within the joints, as that of the *Jaw*, (see *Skull*); those between the lower extremity of the radius and ulna; those between the condyles of the femur, and superior extremity of the tibia. The term is also sometimes applied to ligaments, as the *ligamentum teres*, within the *acetabulum*, &c., &c. *Inter-auricular*, a term applied to the septum, between the auricles of the heart, in the foetus. *Inter-clavicular*, the name of the ligament connecting the one clavicle with the other. *Inter-costales*, between the ribs; applied to two sorts of muscles, the external and the internal, which have been compared, from their passing in opposite directions, to St. Andrew's cross; the term is also applied to arteries, &c. *Inter-current*, distinctive of fevers which occur sporadically, that is, from occasional causes, such as cold, fatigue, &c., in the midst of an epidemic. *Inter-ossei*, muscles situated between bones; such as the *Inter-manus*, between the metacarpal bones, and *Inter-pedis*, between the metatarsal bones. (See *Foot*, *Hand*). We also apply the term to branches of the ulnar artery, and to ligaments. *Inter-spinales cervicis*, the designation of six small muscles situated between the spinous processes of the neck; to these processes there are also attached *inter-spinous ligaments*. *Inter-stitial*, that which stands between, a term applied to an organ occupying the interstices of contiguous cells, as the uterus, the bladder, &c. *Inter-transversales*, the name

given to certain muscles, such as those situated between the transverse processes of the vertebræ of the neck, called *colli*, and those between the transverse processes of the lumbar vertebræ, known as *lumborum*. *Inter-vertebral*, a term applied to the fibro-cartilage between the vertebræ, and to ligaments, &c. The abrasion, fret, or chafing of the skin of parts that come in contact, as in the groins, behind the ears, &c., is called *Inter-trigo*.

**INTERNUNTII DIES** (Latin *inter*, and *nuntius*, a messenger). Critical days in a disease, or such as occur between its increase and decrease. See *Crisis*.

**INTESTINA**. Is the name given to an order of Worms which inhabit the bodies of other animals; of those which affect man, the most familiar example is the Tape Worm, for a cut of which see vol. 1, p. 311; see also article *Worms*.

**INTESTINES** (Latin *intus*, within). That part of the alimentary canal which extends from the stomach to the anus, and is formed of a peritoneal, muscular, and mucous or viscous coat, united by cellular membrane; it is divided into Small and Large Intestines; the first of which has three divisions, severally distinguished as the *Duodenum*, or twelve inch Intestine, the membrane of whose inner surface presents a number of folds called *valvule conniventes*; this begins at the pylorus or lower surface of the stomach, it bends first backwards, then downwards, and then across the body, being partially covered by the peritoneum: it then takes the name of *Jejunum*, so called from its being usually empty at this part; it then runs into the remaining portion called the *Ileum*, which takes its name from its mazy folds or convolutions. The Small Intestines open by the *ileo-colic valve* into the Large Intestines, which have also three divisions, 1st, the *Cæcum*, or head of the *colon*, to which is attached the *appendix vermiformis*, a little blind bag: the *Colon*, which constitutes almost the entire length of the Large Intestine, is termed as it ascends into the right lumbar region, the *ascending colon*, as it crosses the abdomen, the *transverse arch of the colon*, and as it descends in the left lumbar region, the *descending colon*; in the iliac region it forms a double curve like the Greek letter  $\chi$ , and is thence called the *sigmoid flexure of the colon*; the fold of the peritoneum which inverts it, being termed the *iliac meso-colon*.

The termination of the Large Intestine is the Rectum, or end of the alimentary canal, so called because it is nearly in a right line;

here the covering called the peritoneum ceases, and the Intestine accommodates itself to the hollow of the pelvis, having its external opening in the anus, the sphincter of which, a strong circular muscle, guards it. The following cut from Wilson will serve



to render more plain what we have attempted to describe. It represents the Cæcum with its appendix, entrance of the Ileum, and Ileo-cæcal valve. No. 1. Cæcum; 2. Commencement of Colon; 3. Ileum; 4. Aperture of entrance of the Ileum into the large Intestine; 5. Ileo-cæcal Valve; 6. Aperture of Appendix vermiformis cæci; 7. Appendix; 8. Sacculi of the Colon, separated by valvular septa; 9. Falciform frænum of the appendix.

The whole of the *Intestinal Canal* is a continuous tube about six times the length of the body, the first three-quarters of it comprising the Small, and the last quarter the Large Intestines; the size of the tube of the latter portion is much greater than that of the former; the Cæcum, the largest of all, being, at least, three times the size of the Ileum as the above cut shews. (See *Abdomen*, *Alimentary Canal*), and heads of the various divisions above-named.

**INTOLERANCE** (Latin *in*, and *tolero* to bear). A term applied to that condition of the system in which a remedy cannot be borne, such, for instance, as loss of blood. Compare *Tolerance*.

**INTOXICATION**. (Latin *in*, and *toxicum*, poison); this latter term being from the Greek *toxos*, a bow or arrow; its application to poison seems to have arisen from

the circumstance that barbarous people have been accustomed, as they still are, to poison their arrows. With us, to intoxicate is to inebriate, or excite the spirits to a kind of delirium with alcoholic liquors. A person in this state is, to all intents and purposes, poisoned, and it is only a question of the quantity taken, or the power which his system possesses of resisting the influence of the deleterious matter forced into it, as to whether he shall die or recover. The great curse of our land is intemperance, leading to Intoxication. Some persons are so often in this state, that they can hardly ever be said to be quite out of it; the poison is renewed as often as its most violent effects cease, and the wonder is how the wretched drunkard drags on a miserable existence so long, as he often does—a curse and a reproach to himself, his friends, and to human nature generally.

Some indication of the extent of danger to life, which exists in an intensely intoxicated person, may be learned by the non-contractibility of the iris. If this shows no sensibility to light, or to any sudden motion made near it, there is little hope of recovery. The stomach-pump should be used to get rid of as much alcohol as possible, and sickness excited by Mustard, or any emetic, except Antimony, which is too depressing. Vinegar and Water, Hartshorn, or Sal Volatile may be freely given; Cold Water poured on the head in a shower, a Turpentine injection thrown up, and Mustard plasters applied to the pit of the stomach and down the course of the spine. See *Delirium Tremens*.

**INTUS-SUSCEPTIO** (Latin *intus*, within, and *suscipio* to receive). By this term we understand the descent of a higher portion of intestine into a lower one, generally of the ileum into the colon. When it takes place downward it is called *progressive*, when upwards *retrograde*.

**INULIN**. A starch-like powder, deposited from a decoction of the root of the *Inula Helenium*, commonly called *Elecampane* (which see).

**INVERMINATION** (Latin *in*, and *vermis*, a worm). An affection in which worms, or the larvæ of insects, inhabit the stomach or intestines; it is sometimes called *Helminthia*. See *Helmins*, *Worms*.

**INVERSICUTERI** (Latin *inverso*, to invert). That state of the womb in which it is wholly or partially turned inside out. See *Uterus*.

**INVOLUCRUM** (Latin *involvere*, to wrap in). More commonly used as a botanical term, signifying the strong external layer of the covering of plants; but also employed in



surgery to designate the membranes which cover any part. See *Membranes*.

**IODINE** (Greek *iodes*, or *ioiodes*, violet-coloured). This is a crystallised solid substance, found principally in sea-water, and in plants, and other marine productions; it becomes volatile at a slight increase of temperature, and diffuses itself in the form of a beautiful violet vapour, hence the above name. This is one of the most valuable of therapeutic agents, and is largely employed in its various forms and combinations. We now chiefly obtain this substance from the ashes of the kelp, or sea-weed, which is burnt for the purpose of obtaining alkali; the ashes are heated with sulphuric acid and peroxide of manganese, and the vapour which arises is received in a cold vessel, where it condenses on the sides, and forms the soft, opaque crystals, of a blackish blue colour, and metallic lustre, which constitute the Iodine of commerce. It has a disagreeable suffocating odour, and nauseous taste, and it stains whatever it touches of a rusty yellow colour, which remains on the skin for a considerable period. It dissolves readily in alcohol, but very little in water; its characteristic property is that of giving an intense blue colour to starch, of the presence of which it is, therefore, a sure test. United with metals it forms *Iodides*, and with hydrogen and oxygen, Acids, like bromine and chlorine; in many of its properties it bears a close resemblance to the latter.

Iodine, although only obtained in a pure state of late years, has long been employed as the efficient principle of several therapeutic agents, such as Burnt Sponge, and certain mineral waters. Its specific action has been only ascertained, with precision, since it has been procured as a distinct principle. Owing to its sparing solubility in water, it is seldom now, however, administered in a pure state, but rather in the form of some artificial compound, such as the Iodide of Potassium, its most common vehicle of administration. The diseases in which it has been found most useful are glandular swellings, especially bronchocele or goitre, which rarely resists its continuous action. In chronic rheumatism, and some forms of strumous disease, it is also efficacious. It has been given, too, in cases of poisoning with bruchia, strychnia, and veratria, not, however, with such decided success as to warrant our calling it a certain antidote to these formidable poisons. As an outward application, Iodine has been of late most extensively employed. In bronchitis and chronic enlargements of the abdominal viscera, especially of the liver, it has proved

eminently successful; in the latter case it is advantageously combined with Mercury. It may be applied in the form of tincture, painted over with a camel-hair brush, to enlarged tonsils, and to chronic swellings of the joints, as well as to glandular swellings. It is an excellent emmenagogue, combined with Iron, and with Mercury is valuable in syphilitic diseases. Iodine injections are commonly used after tapping for hydrocele; and they have also been employed successfully in effusion of the pleura. As a means of dispersing organic exudations, lotions of Iodine are much to be preferred to ointments; they should be applied on compresses of lint, saturated with them, and bound over the parts. The following may be recommended as a good form for this purpose:—take Iodine, 10 grains; Iodide of Potassium, 1 drachm; Distilled Water, 1 pint. For painting over a glandular or other swelling, the Compound Tincture of the Pharmacopœia may be used; if not strong enough, add Iodide of Potassium,  $\frac{1}{2}$  a drachm; Iodine, 10 grains to 1 ounce of the Tincture. It has been found that this substance will dissolve more readily in Water, to which Syrup of Orange has been added, than in Plain Water, and more readily still in that which has Tannin in it. Two grains of this latter will, it is said, affect the solution of 10 grains of Iodine in 6 ounces of Water, a quantity sufficient for most therapeutic purposes; the dose being from 1 to 2 grains; so that about a tablespoonful of this mixture might be taken two or three times a day. The action of Iodine and its compounds should be carefully watched, as a long train of alarming symptoms will sometimes follow its continued use; among these may be named vertigo, nausea, extreme depression, and syncope, sometimes ending in death. Its chief official preparations, besides its metallic compounds with Potassium, Iron, Lead, Mercury, and Arsenic, &c., are the Compound Liquor of Potash with Iodine: dose, 1 to 4 drachms; Syrup of Iron with Iodine, dose,  $\frac{1}{2}$  a drachm to 1 drachm, an excellent tonic for scrofulous children: Compound Tincture of Iodine, dose, 10 to 30 minims; Compound Iodine Ointment; and the Ointment of Iodide of Potassium.

In a French provincial paper, we find it stated that a blacksmith, who had been suffering from an impaction of a metallic particle in the cornea for a week, was relieved by the following collyrium, after every attempt at extracting the splinter had failed:—Iodine, 1 grain; Iodide of Potassium, 10 grains; Rose-water, 3 ounces. As soon as this solution was applied to the

eye, oxidation of the metallic particle took place, and its brilliancy disappeared; the distressing symptoms about the eye abated, sight was restored, and nothing but a microscopic fragment of metal left in the cornea. A soluble Iodide of Iron had been formed.

Dr. Barlow, of Guy's Hospital, has long employed the Iodide of Zinc in the treatment of chorea when complicated with struma—a remedy which he introduced into use. In cases, in which there is no peculiarity of diathesis, he employs the Sulphate, but in those in which any indications of struma exist he prefers the Iodide. Besides its influence over the scrofulous cachexia, it is quite possible that the iodic element may be useful against the rheumatic diathesis to which the choreic is so close a congener. Good authorities are not wanting who would account for the frequency of heart complications with chorea, by supposing that the latter is a condition very closely connected with rheumatism, depending upon similar causes, and occurring more frequently in those liable to it than in others.

We ought not to close our account of this valuable therapeutic agent, without alluding to Davenport's Syrup of the Iodide of Quinine and Iron, and of the Iodide of Potassium and Iron; these are excellent preparations, possessing all the strengthening and anti-scrfulous properties of their tripe components, and being very palatable, are quite adapted for family use.

**IONTHOS** (Greek for the root of the hair). The name by which some ancient medical writers designate the disease *Aene* (which see), because it often occurs during the growth of the *lanugo* or first beard.

**IORACISMAS** (from the Greek letter *iota*). A defective pronunciation of the letters *j* and *y*. See *Psellismus*, *Stammering*.

**IPECACUANHA** (*ipi*, Peruvian for root, and *Cucuanha* the district from whence it was first procured). This is a plant formerly supposed by Ray to be a species of *Paris*; by Linnaeus a kind of *Lonicera* or honeysuckle; generally thought to be a violet, or species of *Calliococea*, but now decided, on the authority of Decandolle, to be the *Cephaelis Ipecacuanha*, a Brazilian plant of the natural order *Cinchonaceæ*. Its varieties, as known in commerce, are:—1st, the Brown, which is the best, containing about 16 per cent. of *emetin*, which is the active principle; 2nd, the Grey, or Ash-coloured, which contains 14 per cent.; and 3rd, the White, containing only five per cent. of *emetin*. Some writers, Dr. Thomson among them, prefer to distinguish it as 1st, Annulated, or

Ringed; and 2nd, Striated, or Streaky; but it may generally be described as in the New London Pharmacopœia—"Ashy-coloured, tortuous, very much cracked, and marked in rings, by deep fissures, having an acrid, aromatic, bitterish taste." The following cut will serve to show the common appearance of the plant while growing.



This is one of the most valuable of medicinal plants; taken in small doses, it is expectorant and diaphoretic, having a specific action on the bronchial mucous membrane, so as to excite its secretion when too dry; it relieves the system, and causes sweating. In full doses, of about 20 grains, it is the safest and easiest emetic known; it does not nauseate, and reduce the system so much as Tartar Emetic, nor is it so rapid and irritating in its action as Sulphate of Zinc, which, however, is to be preferred in cases of narcotic poisoning, as promptitude of action is there of the utmost consequence, and irritation of the system is rather beneficial than otherwise. For children and delicate persons, Ipecacuanha should always be preferred, where it is necessary to excite nausea or vomiting; its expectorant property renders it especially serviceable in catarrhal affections, in which it is frequently given in combination with Squills; in febrile affections, we often employ it as a diaphoretic, combined with Opium, as in the *Dover's Powder* (which see). In hooping cough and asthma it is given to relieve spasmodic constriction, and clear the passages of phlegm by vomiting; and in dyspepsia and dysentery it is also found beneficial. Of the Powdered Root, the dose, as an expectorant, is 1 or 2 grains; as a diaphoretic, 2 to 4 grains; as an emetic, 10 to 20 grains, according to the age and strength of the patient; for the latter purpose, it should be



given in plenty of warm water, and as much as possible of this should be drank after it. (See *Emetic*.)

Among the official formulæ of this plant are the Decoction; Extract; Lozenges, each containing  $\frac{1}{2}$  a grain; Powders, Simple and Compound; Pills, combined with Opium and Squills; Syrup; and Wine; the last is the most generally used; it may be made for domestic purposes by digesting for seven days 1 ounce of the bruised root in a pint of Sherry Wine: dose, as expectorant and diaphoretic, 10 to 30 minims; as emetic, 2 to 4 drachms, or for children, 20 minims, to a drachm. By boiling down 1 ounce of this with the same quantity of water, and 2 ounces of sugar, a syrup may be made for infants, of which from  $\frac{1}{2}$  a drachm to a drachm will be sufficient to produce vomiting. (For pills and other formula, see *Cough*).

As the result of chemical analysis we find *Ipecacuanha* to consist of its alkaline base, *emetin*, 16 parts; oil and wax, 8; gum, 10; starch, 40, and woody fibre, 20; of the *emetin*, a single grain is a certain and useful vomit, but it is too powerful a drug for domestic use.

**IRIS FLORENTINA or GERMANICA.** The Florentine Iris, commonly known as Flower de Luce, belonging to the natural order



*Iridaceæ*. (See *Orris Root*). The Yellow Water-Flag, *Iris Pseudo-acorus*, formerly termed in the London Pharmacopœia, *Gla-*

*diolus luteus*, is employed by the peasants in the south of Scotland to cause sneezing; and it has been said that the roasted seeds very nearly approach coffee in quality; it scarcely, however, merits a place among our medicinal plants.

**IRIS** (a rainbow). The colouring ring which surrounds the pupil of the eye is commonly so called; properly, however, the term signifies only the anterior lamina of the ring, of which the posterior lamina is the *uvea*; from this root comes *Iritis*, inflammation of the Iris. (See *Eye*). The term *Iris* is also applied to the Rainbow Ringworm, a species of *Herpes* occurring in small circular patches, each composed of concentric rings of different colours. See *Ringworm*.

**IRON** (Latin *ferrum*). This metal is used medicinally in a variety of forms, the chief value of which consists in their tonic properties, rendering them very useful in debilitated states of the system; weak, pallid, and delicate persons may generally take these preparations with safety and advantage; but those who are habitually costive, who suffer from piles, or from a determination of blood to the head, should carefully avoid them; their usual effect being to increase the arterial action, and promote the secretions, therefore to an excited state of the circulation they are unsuitable. As a rule, no person with a naturally florid complexion, or a full habit of body, should take Iron, which is most commonly prescribed for chlorotic anæmia, serofula, enlargements of the liver and spleen, flnor albus, gleet, passive hæmorrhages, chorea, atonic dyspepsia, chronic dysentery and diarrhœa, tic-doloureux, and other nervous affections, and worms. The administration of Iron should generally be preceded by that of purgatives, and if headache or constipation follow its use, it should be discontinued.

The preparations of this metal are so numerous, and some of them so little used and unsuitable for domestic employment, that we need only particularise a few of them—such as are most available for this purpose; we may observe at the outset that they are all oxides and salts, and that they are often spoken of as preparations of Steel or *Chalybeates* (which see).

The medicinal springs of this country in which Iron is found most largely, and which are, therefore, called *Chalybeate Waters* are those of Dumblane, in Scotland; Harrogate; Hartfell, near Moffatt; Holywell, in Lancashire; Isle of Wight; and Tunbridge Wells, in Kent. When the

constitution requires Iron, this is, perhaps, the most beneficial way of taking it; but this is not always attainable. The striking benefit, which follows the use of the metal in these waters, justifies the belief that it acts most beneficially in small doses diffused through a considerable quantity of liquid. Many persons drink Chalybeate Waters merely because it is fashionable to do so, or that they happen to be near them; but, unless they really require the action of the tonic, they are likely to do themselves injury; they had better therefore be guided by medical advice.

Iron in the crude state, in the form of filings, was formerly much used as a tonic stimulant, emmenagogue, and anthelmintic: they were given in doses of from 5 to 30 grains, combined with aromatics, bitter extracts, Myrrh, or Soap; or made into an Electuary with Treacle or Honey; but they are now almost superseded by the various ferruginous preparations, the chief of which we proceed to notice.

*Iron or Steel Wine* is one of the most simple and useful of these preparations; it is especially adapted for children: the dose is from 1 drachm to  $\frac{1}{2}$  an ounce.

*Ammonia-tartrate of Iron* is a good preparation, without astringency or disagreeable taste; it is especially serviceable in uterine diseases: the dose is from 5 to 8 grains; the best vehicle is Honey.

*Ammonia-citrate of Iron* is an elegant and agreeable preparation, applicable to the same class of diseases as the last, and also to general debility; it may be given in Cinnamon or other aromatic waters, but not in bitter infusions, as it turns most of them black; the dose of this is from 5 to 8 grains. It is kept in combination with Quinine, and may be beneficially exhibited when a bitter tonic is required.

*Carbonate, or Sesqui-oxide of Iron* is a red, insoluble powder, disagreeable to take on account of its bulk; as much as a drachm or 2 drachms of it being required, three or four times a day; it should be made into an electuary with Confection, Honey, or Treacle: it is a good chalybeate tonic, and has a high reputation for the cure of neuralgic affections, especially tic-doloureux; it must be taken for a considerable time to do much good.

*Iodide of Iron* is an excellent tonic in serofulous debility and deficient menstruation, strumous swellings, incipient cancer, diseased mesenteric glands, and serofula generally: the dose is from 2 to 5 grains, but it is difficult to keep either in a solid form or solution, as it very soon decomposes; it may

be obtained in the form of *Syrup*, and may be kept good in a well stopped bottle for a considerable time, especially if a piece of iron wire is kept in it; the dose of this is from 15 minims to a drachm.

*Muriated Tincture of Iron*, commonly called Tincture of Steel, is a good astringent and tonic, and acts specifically upon the urinary organs; it is therefore useful in irritation of the bladder and retention of urine, depending on spasmodic stricture of the urethra; in vomiting and spitting of blood it is also serviceable: the dose is about 10 minims; and for stricture it may be given every 10 or 15 minutes, to the extent of 6 or 8 doses, but it should not be carried beyond this. This is also an excellent local styptic, and may be applied with advantage to loose fungous sores, and as an astringent to relaxations of the throat, with a camel's hair brush.

*Sulphate of Iron*, sometimes called Green Vitriol, but more commonly Copperas, is poisonous in large doses, but in small, that is, from a grain to 5 grains; is a good emmenagogue and also anthelmintic; its astringent properties render it useful in profuse hæmorrhages, in chronic diarrhoea, and dysentery. It enters into the composition of the compound Steel Pill, and the Compound Steel Mixture of the Pharmacopœia, being combined in both cases with Myrrh and an alkali: when properly and freshly made, in which case it will be of a decided green colour, the latter is one of the best emmenagogues that can be administered: the dose is about 2 table-spoonsful two or three times a day.

The *Tartrate, or Potassio-tartrate of Iron*, has similar properties with the Ammonia-tartrate, and may be applied to the same purposes. One objection to the continued taking of most preparations of Iron, and especially the Muriated Tincture, and the Sulphate, is that it is likely to discolour the teeth; while taking it, persons should be careful to keep them well cleaned, and to use an alkaline tooth powder.

**IRRITABILITY** (Latin *irrito*, to provoke). The action produced by any stimulus. This term, as signifying a disease, we apply to cases arising from calculus in the ureter, or gall duct; and those induced by the presence of improper food in the stomach, or morbid matters retained in the bowels, giving rise to inflammatory action. When we speak of *Irritability*, we allude to the action of certain muscles, as those of the heart, the intestines, &c., which action is caused by a stimulus acting immediately upon their fibres, and as a consequence exciting the



nerves in connection with them, and of course, though in a less degree, the whole nervous system. Various names have been given to this property; thus Haller termed it *Vis insitu*; Goeter *Vis vitalis*; Boerhave, *oscillation*; Stahl, *tonic power*; Bell, *muscular power*; Cullen, *inherent power*; and Bostock, *contractibility*; but it cannot, perhaps, have a better definition than that of Abernethy, who called it *excited debility*; it being an unnatural stimulation of the excited organs to work above their common capability. Again it may be termed diseased excitement; not amounting to inflammation, but commonly leading thereto.

*Irritability* is symptomatic of many diseases, and it is extremely trying to both patient and medical adviser, the latter of whom is often baffled by the contradictory symptoms which it causes. Great allowance must be made for persons suffering from this cause of unnatural excitement of the muscles and nerves; they have frequently no more control over themselves than idiots, laughing and crying in a breath, and acting in the strangest way imaginable, although perfectly conscious that it is all very ridiculous. With such, too, the slightest words or looks of those about them assume an exaggerated importance, and aught which jars upon their delicate sensibility, or the smallest physical injury, will produce unbearable anguish of mind or body. They should be pitied and soothed—not, as they too often are, treated harshly and unkindly. Many of the diseases of children partake more of the character of irritation than inflammation, and irritable children are commonly looked upon as great nuisances, when in reality they ought to be regarded as great sufferers. Difficult dentition or digestion, worms in the intestinal canal, or almost any functional derangement, will produce convulsions, spasms, and other affections consequent on irritation, the action in most cases being first felt by the brain, and thence reflected, so as to affect a particular set of muscles, or the whole muscular system.

Under this head, we should make some remarks upon *Counter Irritation*, that is, some irritating agent applied to one portion of the body to produce increased action, and so draw off, or counteract, an analogous action going on in another portion. We generally apply the term to action artificially excited in the skin by stimulating liniments, friction, heat, blisters, cataplasms, or any other exciting agent. The extent to which this operation should be carried varies with the necessity of the

case; it may be that merely reddening the surface will be sufficient, or it may be necessary to get up inflammatory action, so as to produce a discharge of purulent matter, as in *Blisters*, *Issues*, and *Setons* (which see); also *Cautery*, *Escharotics*, *Rubefacients*, &c. Some medicines which are given to promote the monthly discharge of the uterus, act as irritants, of these we have spoken under the head of *Emmenagogues*. Most poisonous substances owe their mischievous effects to their irritating powers; be they metallic or non-metallic, vegetable or animal, they mostly produce an inflamed state of the tissues with which they come in contact first, and then by absorption, or by nervous agency, spread through the whole system. See *Poisons*.

**ISCHIUM** (Greek *ischion*, the hip). The scientific name for the hip bone, a spinous process of the *os innominata*; hence we have the terms *Ischiatic*, the designation of a notch of the *os innominata*; of an artery which proceeds through that notch, &c.; and *Ischio cavernosus*, a muscle attached to the *Ischium*, and to the *corpus cavernosus*; it draws the root of the penis downwards and backwards. *Ischias* appears to have been the term used by the Latins for rheumatism of the hip-joint; it was afterwards corrupted into *ischiatia*, and eventually to *Sciatica* (which see). *Ischi-agra*, *I. algar*, and *Ischiato-celc*, are also terms from the above root, the first signifying an attack in the hip, the second pain in the hip, and the third an internal rupture through the sciatic ligaments. See *Hip*.

**ISCHNOPHONIA** (Greek *ischnos*, slender, *phone*, voice). A shrillness of the voice, hesitation of speech, or stammering. See *Pscllismus*.

**ISCHURIA** (Greek *ischo*, to retain, and *oyrin*, urine). A suppression of the secretion of the urine, the term is properly applied to *Ischuria renalis*, which is really a suppressed secretion; but it has been improperly extended to *Ischuria ureterica*, *vesicalis*, and *urethralis*, which are but *retentions*. See *Urine*.

**ISINGLASS**. Fish glue or *Gelatine* (which see), also *Iethyocolla*. It is chiefly prepared from the sounds and air bladders of the beluga and sturgeon; the substance is first scraped, then steeped in lime water to remove the grease, washed, dried, twisted into staples, bent into hooks, or rolled into balls, according to the quality; the finer sorts being cut into small shreds by machinery. Its chief use is to fine wine and beer, and to make jelly; 6 grains of it when good is sufficient to solidify half a pint of water. This is the

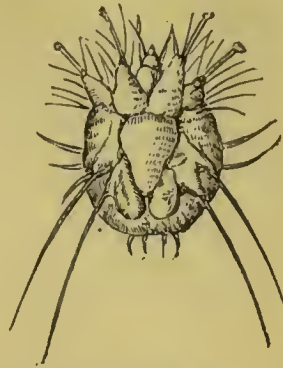
purest kind of animal gelatine, and its nutritious properties render it valuable for invalids and children; especially those brought up by hand, to whom it may be given before any kind of animal food, except milk, which it may be used to thicken.

**ISSUE** (in Latin *fonticulus*, a little fountain). An ulcer purposely made, and kept open for the cure or prevention of disease: this may be termed an artificial sore, from which a discharge of matter is kept up for the purpose of producing derivative action, and thus afford relief to some part of the system threatened or attacked. There are several ways of forming an Issue, such as applying caustics, or a red-hot iron, to the part; but the most common, and perhaps the best plan for popular use, is that made by pinching up a fold of the skin, and making an incision with a lancet, or other sharp instrument, sufficiently large for the insertion of two or three peas, which are kept in by a strip of adhesive plaister. The irritation which they occasion will in a few days produce a discharge of matter; the peas should be taken out, and fresh ones inserted every day, while it is desirable to keep the Issue open. A blister, kept open by repeated renewals of the irritating matter, is an Issue; so is an application of Ointment of Tartarized Antimony, or any irritant sufficiently strong to produce a running sore. Caustic Potash is sometimes used for the purpose, thus:—Spread a piece of leather with Diacylon, cut a hole in the centre as large as the Issue is desired to be, warm, and stick it on to the seat of the intended Issue; then spread the Potash over the circular patch of skin left unprotected by the leather; it will soon change to a brown colour; then apply a Linseed Poultice, and renew it night and morning until the slough comes out, and leaves a small cavity, into which put two or three peas, previously prepared by being soaked in a Solution of Sulphate of Copper, in the proportion of about  $\frac{1}{2}$  a drachm to an ounce, and dried; over the peas place a piece of Soap Plaister, and secure it tightly to the surrounding skin, and also by a bandage; the moisture will cause the peas to swell and press inwardly, and so irritate and inflame the wound, causing a formation of matter; they must be renewed daily, as in the cases before mentioned. In the management of all Issues, great cleanliness should be observed, and one should never be made if it can be avoided, on a part exposed to view, as it will most likely leave an indelible scar. See *Seton*.

**ISTHMUS VIEUSSENI.** The Isthmus of

Vieussens, a ridge surrounding the oval fossa, or remains of the *foramen ovale*, in the right auricle of the Heart (which see).

**ITCH** (scientifically called *Scabies*). A troublesome disease caused by a kind of acarus



known as the *Itch Insect*, or, as naturalists term it, *Acarus Scabiei*, of which we give a magnified representation.

In its natural size, it is so minute as to be scarcely visible to the naked eye. The most prominent symptom of this disease is a constant and intolerable itching; it never comes on of itself, but is always the result of contact with an affected person. It first shows itself in an eruption of small vesicles filled with a clear watery fluid, occurring principally on the hand and wrist, and in those parts most exposed to friction, such as the spaces between the fingers, and the flexures of the joints, &c; after a time it extends to the legs, arms, and trunk, but it rarely appears on the face. The insects are often found in the vesicles, but not always; hence some have doubted whether they are really the cause of the disease, although it is generally supposed that they are.

The Itch is never got rid of without medical treatment; but to that it will always yield, provided proper cleanliness be observed. Sulphur is the grand specific for it; it may be applied in the form of Ointment, prepared as follows:—Flowers of Sulphur, 2 ounces; Carbonate of Potash, 2 drachms; Lard, 4 ounces: to be rubbed well in wherever the eruption appears, every night and morning; washing it off with soap and flannel, before each fresh application. The most effectual plan is to anoint the whole body, from the nape of the neck to the soles of the feet, and out to the ends of the fingers; put on socks, drawers, flannel wrapper, and gloves, and so remain in bed for 36 hours, repeating the anointing operation twice during that time; then take



a warm bath, and wash the whole person with soap and flannel. In mild cases, a sulphureous vapour bath taken twice in 24 hours, with warm soap and water washing, will generally be sufficient. In obstinate ones, it may be necessary to resort to Alterative aperients, a spare diet, with ointment, warm baths, and a lotion made as follows:—Dissolve 4 ounces of Sulphate of Potash in a Quart of Water, and add  $\frac{1}{2}$ -ounce of Sulphuric Acid; to be applied warm, with a sponge, before the fire. According to an announcement made to the French Academy of Medicine by M. Bonnet, Benzine rubbed on the affected parts will cure Itch in five minutes; the patient has only to take a warm bath after it, and lo! he is clean. In France, also, an Ointment composed of 2 scruples of Naphthaline to 1 ounce of Lard has been found an effectual remedy for this troublesome disease; but we hold that there is nothing like Sulphur. The Compound Sulphur Ointment of the Pharmacopœia, made with Sulphur, White Hellebore Powder, Nitrate of Potash, Soft Soap, and Lard, is no doubt a very effectual application, but it is disagreeable to use, and objectionable on account of the Hellebore. The Simple Sulphur Ointment, as above directed, probably answers the purpose equally well, and is free from this objection. (See *Psora*). *Bakers' Itch* is a species of *Psoriasis*, (which see). *Bricklayers' and Grocers' Itch* may be classed under the head of *Impetigo*: they are all the result of irritation of the skin.

**ITER AD INFUNDIBULUM** (Latin *iter*, a way or journey). A name given to the passage of communication between the third ventricle of the brain, and the *Infundibulum* (which see).

**ITER A PALATIO AD AURUM.** The passage from the palate to the ear. This is by anatomists commonly called the Eustachian Tube. See *Ear*.

**IVORY.** The substance of which the tusk or tooth of defence of the male elephant is composed, as well as the tusk of the walrus, the horn of the rhinoceros, and some other animals. In its nature it appears to be something between bone and horn, not so hard and brittle as the former, nor capable of being softened by fire, like the latter. Guillot obtained from 100 parts of Ivory, 24 of Gelatine, 64 of Phosphate of Lime, and 0.1 Carbonate of Zinc.

**IVORY BLACK,** or *Animal Charcoal*, is made by exposing bones and other animal matters in iron cylinders to a red heat, allowing the effluvia to rise through a pipe.

**IVY.** This, which is the *Hedera Helix* of botanists, can scarcely be called a medicinal

plant, although its leaves are sometimes used to dress issues and cover inflamed surfaces; the berries are purgative, and the trunk yields a gum.

*Ground Ivy* is a pretty little trailing plant, of the natural order *Labiata*, called by botanists *Nepeta Glechoma* (of this we give



a cut); it has a strong smell, and aromatic taste, and is thought to be gently stimulant and tonic, aperient, diuretic, and corroborant, with a particular action on the lungs and kidneys. The leaves were formerly thrown into the vat with ale, to clarify it and give it a flavour. It has long been a popular remedy for coughs, pulmonary complaints, and urinary affections.

**JACK BY THE HEDGE.** The popular name of a native plant sometimes called *Sauce alone*; it is the *Erysimum Alliaria* of botanists, smells strongly of onions, and has stimulant, diuretic, and errhine properties—the last residing in the seeds.

**JACKSON'S BATHING SPIRITS:** A composition sold under this title was, at one time, in good repute as a remedy for rheumatic and other complaints; it was little else than soap liniment scented with essences.

**JALAP or JALOP.** The tuberous root of the *Ipomœa Purga*, a Mexican plant of the

natural order *Convolvulaceæ*, contains a peculiar resin which has strong cathartic properties. This is one of our commonest and most valuable purgatives, but it is used far too indiscriminately; for in irritable conditions of the bowels, or in weak states of the system generally, it is productive of mischief, on account of its active and drastic nature; it produces watery evacuations, and often nauseates and gripes. The resin is sometimes extracted and given alone, but more commonly in combination with the woody fibre; the Ground Root being the general form of administration: the dose is from 2 to 5 grains for children; from 10 to 30 grains for adults. It is sometimes



given as a vermifuge, especially if combined with a little Calomel. This drug derives its name from Jalapa, in Mexico, whence it is chiefly imported. The chief officinal preparations into the composition of which it enters are—the Extract, dose from 5 grains to a scruple; Pill Jalap with Colocynth, 5 to 10 grains; Compound Powder, in which it is combined with Cream of Tartar and Ginger, 1 scruple to a drachm; Tincture, 1 to 3 drachms; Resin, 3 to 12 grains; Mixture, 1 ounce to 1½ ounce; there is also an old preparation called *Sapo Jalapinus* (Soap and Jalap) made with equal parts of Castile Soap and Jalap, digested in alcohol, and evaporated to the consistence of a conserve; but it is seldom or ever used now. *Jalapine*, which is the alkaloid, or active principle of Jalap, may be sometimes given with advantage under careful superintendence; but it is too powerful for domestic use; the dose is about the  $\frac{1}{4}$  of a grain; the smallness of the quantity required, renders it a good mode of administering this nauseous drug, but it should never be entrusted to ignorant hands.

JAMAICA PEPPER. See *Allspice* or *Pimento*.

JAMES' ANALEPTIC PILLS consist of equal parts of James' Powder, Gum Ammoniacum, Aloes, and Myrrh, made up with Tincture of Castor: they once enjoyed a high reputation.

JAMES'S POWDER.—This is one of the few patent medicines that the profession really recognize and recommend; it has long been celebrated as a fever powder, and is supposed to be almost, if not quite, identical with the Compound Antimonial Powder of the Pharmacopœia, which is given as an alterative in doses of from 1 to 3 grains; as a diaphoretic, from 3 to 8 grains; in larger doses it is emetic and purgative; in the febrile states and conditions of children, when the vascular action requires lowering, this is commonly given in combination with Calomel; it is found useful in these cases, but, as a general rule, preparations of Antimony are not to be recommended, especially to the domestic practitioner.

JAPAN EARTH (in Latin *Terra Japonica*). This was at one time supposed to be a mineral production, although it is in reality a product of vegetation, being procured from the *Acacia Catechu*, or khair tree. It is to the darker kind that the above name was commonly applied, that from Bombay; the paler sort, or Bengal Cutch, more usually bore the name of *Catechu* (*Jatropha Manihot*, *Mandioocca*, which see), a plant of the natural order *Euphorbiaceæ*, remarkable for the differing properties of its several parts, the Leaves being used as a common esculent, while the root secretes a most virulent poison, which same root, when roasted, becomes a wholesome and nutritious article of food. In the seeds, the albumen is harmless and eatable, while the embryo itself is acrid and dangerous. The fecula which the root yields is much valued in South America, and has been introduced into this country as an article of diet, under the name of *Cassava* (which see), also *Tapioca*.

JATROPHIC ACID. An acid procured from croton oil, which, in the preparation, is first converted into soap; it is more commonly called *Orotonic Acid*.

JAUNDICE (in Greek *ikteros*). A disease proceeding from an obstruction of the flow of bile in the liver, and characterised by a yellow colour in the skin; it was formerly called *morbus regius*, *morbus argenteus*, *aurigo*, &c.

The peculiar effects which we notice in jaundice are occasioned by the absorption of



bile into the circulation, owing to some impediment to its passage in the usual way from the liver. The most common obstructions are *Gall-stones* (which see); tumours which press upon the duct; or spasm, causing constriction of the same, may also be the cause; and sometimes strong mental emotion. In this disease we notice that the white of the eye acquires a yellow colour, varying from the slightest tinge to that of gold; the whole of the skin of the face, too, and sometimes of other parts of the body, assumes the same tint; the stools become white and chalky-looking, and the urine, and sometimes also the perspiration, is tinged with bile.

Of itself this is not a dangerous disease; but, as symptomatic of organic mischief going on somewhere, it should be viewed with fear, and have immediate medical attention.

The *treatment* should be an avoidance of rich or fat foods, such as promote the secretion of bile, and all alcoholic stimulants. From 5 to 8 grains of Chalk and Quicksilver (grey powder) may be given at bed-time, and a Black Draught, or Castor Oil, in the morning. If there is much pain, 5 grains of Extract of Henbane, or Hemlock, may also be given at night; and as there is generally more or less of acidity, a mixture composed of 1 drachm of Carbonate of Soda, 2 grains of Extract of Taraxacum, and 6 ounces of Plain or Cinnamon Water, may be given; two table-spoonsful every 4 hours.

**JELLY.** A soft tremulous substance, made, in the case of *animal jelly*, from the skin, membranes, bones, or cartilages of animals (see *Gelatine*); and in the case of *vegetable jelly*, from the pulpy juice of certain fruits, as currants, &c.; this latter consists of mucilage and vegetable acid; it is preferable to jams for invalids, on account of its clearness and freedom from skins, or stones, or other indigestible parts of the fruit, of which it is made. Of the animal jellies, those prepared from calves' and neets' feet are the most strengthening. Isinglass is very good made in this way:—Boil 1 ounce of Isinglass Shavings, 40 Jamaica Peppers, and a bit of brown crust of bread, in a quart of water, to a pint, and strain it. This makes a pleasant Jelly to keep in the house; a large spoonful may be taken in wine and water, milk, tea, soup, or any other vehicle that may be most agreeable.

The above receipt is from "The Wife's Own Book of Cookery;" in which also will be found directions for preparing tapioca, rice, hemp-seed, and various kinds of Jelly suitable for persons in delicate health. The

following is so excellent and strengthening an article of diet for invalids, that we are tempted to extract it also:—Put into a jar 2 Calves' Feet with a little Lemon Peel, Cinnamon, or Mace, and equal quantities of Milk and Water to cover them; tie over closely, and set in a slack oven for about 3 hours; when cold take off the fat, and sweeten and warm when required.

**JERUSALEM ARTICHOKE.** The *Helianthus Tuberosus*, a species of sunflower, the root of which resembles the true Artichoke in taste; neither of these are adapted for persons of weak digestion; they should be especially avoided by the flatulent and aged. On some persons the true Artichoke acts as an aperient. See *Oynaria*.

**JESUITS' BARK.** This term was formerly applied promiscuously to several kinds of Bark used as a tonic and febrifuge. See *Cinchona*.

**JESUITS' DROPS,** A nostrum formerly much esteemed as a stomachic and purifier of the blood; it was also reckoned a remedy for rheumatism: this is the form of preparation:—Digest 5 ounces of Sarsaparilla Root, 7 ounces of Gum Guaiacum, and 4 drachms of Balsam of Peru in 2½ pints of Alcohol for about a fortnight, shaking and warming occasionally; filter for use.

**JOINT,** scientifically called *Anthrosis* or *Articulation* (which see). The diseases of the Joints—1, *Hydrops articulo*, a collection of serous fluid in the capsular ligament of a Joint; 2, *Spina ventosa*, the former name for white swelling (see *Knee*); 3, *Morbus coxarius*, disease of the hip, called serofulous caries of the *Hip-joint* (which see).

**JUDAM** or **JUZAM.** Arabic terms for the disease called *Elephantiasis* (which see). According to Niebuhr, it is at the present day called *Dsjuddam*, and *Madsjuddam*, in Arabia and Persia.

**JUGLANS** (query *Jovis' glans*, Jupiter's nut). A name applied to a genus of plants belonging to the natural order *Juglandaceæ*. In this genus we find the American hickory and the walnut tree, scientifically called *J. Albea* and *J. Regia*.

**JUGULI OS** (Latin *jugum*, a yoke). The zigoma, or arch formed by the zygomatic processes of the temporal and cheek bones; sometimes called *Os zygomaticum*.

**JUICES OF PLANTS.** These contain all the proximate principles of plants which are soluble in water; they are generally extracted by pounding the plant in a marble mortar, and then putting it into a press, which squeezes out all the liquid. Some

plants contain so little Juice, that water must be added to obtain it, and some have so much mucilage that the Juice is viscid and will not flow, to that, therefore, water must be added. Juices which are not acid, and not very mucilaginous, will settle of themselves, and become clear; some must be clarified by fermentation or otherwise. Those plants which have antiscorbutic properties abound in saline volatile particles, which it is necessary to preserve; if subjected to heat, therefore, they must be enclosed to prevent the escape of those particles, on which their medicinal virtue chiefly depends; the qualities of most Juices are injured by fermentation; the most usual method of clarifying those which are mucilaginous is to boil them with White of Egg, or other albuminous matter. Juices of Plants do not keep well, therefore they are seldom used in a fluid state, but mostly in the form of *Extracts* (which see).

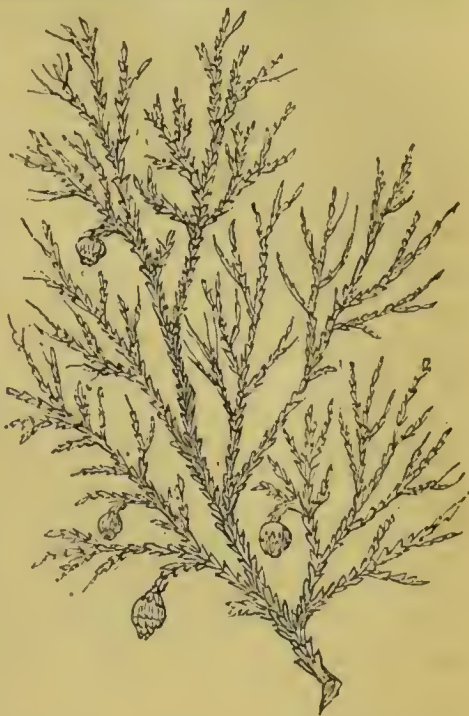
**JUJUBES** (*Arabic jujubæ*). The fruit of the *Rhamnus Zizyphus* of the natural order *Rhamnecæ*. A kind of lozenge introduced by the French under the name of *Pâte de Jujubes*, has lately obtained much favour in this country; the ingredients of which they are, or ought to be prepared, are the juice of the above fruit, with raisins, sugar, and gum arabic. In coughs, bronchial affections, and dry states of the trachea, they may be taken with pleasure and advantage.

**JULEP**. A term found in old Pharmacopœias, but not now used in medicine, as it expressed what we now understand by mixtures; thus camphor mixture was formerly called camphor julep. Recently the name has, in America, been revived, and applied to various kinds of drinks, most or all having an alcoholic basis.

**JUMBLE BEADS**. The seeds of the *Abrus Precatorious*, or Wild Jamaica Liquorice, reputed to be *Cephalic*, (which see).

**JUNIPER**. The Latin name *juniperus* is applied to a genus of plants of the natural order *Coniferae*. One member of the genus is the Lycian Juniper (*J. Lycia*), from which it is said we obtain the *Olibanum*, *Thus*, or *Frankincense* of commerce: (see latter head). Another is the *J. Sabina* or *Savine* (which see); but the common juniper (*J. Communis*) is that with which we are best acquainted; its berries yield a volatile essential oil, upon which the flavour and diuretic properties of the spirit called Geneva principally depend. English gin, we find, has more of turpentine than of this oil in it. The berries of our common native Juniper, when ripe, are of a purplish black colour; they have a strong aromatic odour

peculiar to themselves, and a flavour much like that of turpentine; they are aromatic, stimulating, diuretic, and diaphoretic, and are chiefly employed as an adjuvant to other remedies, and to increase the flow of urine



in cases of dropsy: the dose of the Berries themselves is from 1 to 3 drachms, they may be taken in powder; but the Oil or Compound Spirit is more frequently administered; the dose of the former is from 4 to 6 minims; of the latter from 2 to 4 drachms. An Infusion of Juniper Tops is sometimes taken; it may be prepared thus:—Fresh Tops of the Plant, 1 ounce; Boiling Water, 1 pint; infuse for 2 hours, and strain: take a wine-glassful twice a day—it is best, however, used as a vehicle for other diuretics.

In some parts of Europe, Juniper berries are roasted, ground, and used as a substitute for coffee; they are, also, employed in Sweden and Germany, as a conserve, and as a culinary spice, especially to give a flavour to that favourite dish of the Germans *Sourcroust*. The gum *Sandarac*, which exudes from one of the species of Juniper, constituted, when powdered and sifted, the substance called *Pounce*; and the Oil of Juniper mixed with nut-oil makes an excellent varnish for pictures.

**JUVANTEA** (Latin *juvo*, to assist). A name sometimes applied to medicines which assist



in relieving the urgent symptoms of diseases.

**KALI.** A term of Arabic origin, denoting a particular plant, and generally applied with the article *al*, to the residuum obtained by lixiviating the ashes of the plant; we now apply the term to a large class of bodies possessing certain properties. (See *Alkali*).

In the old Pharmacopœias we find that *kali* generally stands for *Potash* (which see), as in the *Kali acetatum*, Acetate of Potash; *K. preparatum*, Subcarbonate of Potash; *K. purum*, or *fusa*, Fused Potash; *K. tartarizatum*, Tartrate of Potash; *K. vitriolatum*, Sulphate of Potash, &c.

**KEDERIA TERRESTRIS.** A mineral tar or naphtha, commonly called *Barbadoes Tur* (which see).

**KELP.** The ashes of sea-weeds or *fuci*, chiefly used in the manufacture of soap and glass; it is also largely employed in bleaching; but we are chiefly concerned in noticing it, as containing a considerable quantity of soda, and yielding that valuable product, Iodine. Common Kelp contains but 2 or 3 per cent. of soda; but that obtained in France and Spain, called *Barilla*, has from 14 to 20 per cent. About the Hebrides and other parts of the Scottish coast, this article is obtained in large quantities, and it may be had on most sea-shores, interior salt lakes, and indeed, wherever the soil or the water is impregnated with saline particles. See *Iodine*, *Soda*.

**KERATININGS** (Greek *keras* or *keratos*, a horn, and *nyssô* to puncture). In Germany they employ this term to denote the operation of couching, as performed through the cornea. When the opaque lens is by this means merely turned, presenting its anterior and posterior surface in the horizontal position, it is called *Rectination* (which see), also *Couching* and *Eyc*.

**KERMES.** A term of Persian origin applied to an insect nearly allied to, if it be not of the same species as the true Mexican Cochineal, found upon the *Quercus Ilex*, a kind of oak growing in the south of Europe; the ancients supposed this to be the fruit of the *Ilex*, and hence called it *Coccus Ilidis*; they employed it as a scarlet dye, calling it *Cocinin*, and the persons who wore cloth dyed with it, *Coccinati*. The rich colour called carmine, was formerly prepared from the Kermes, but is now obtained from the *Coccus cacti*, or *Cochineal* (which see).

**KERMES MINERAL**, formerly termed *Panacea glanburina*, was so named for its resemblance to the above insect; it is properly Sulphuret of Antimony, and differs from the Golden Sulphuret, in containing a larger

proportion of Sulphuretted Hydrogen. See *Antimony*.

**KETCHUP.** The prepared liquor of Mushrooms, much used as a sauce. So commonly is this article adulterated, that it is scarcely ever safe to purchase it for family use; very frequently so-called Mushroom Ketchup, has really nothing whatever of the esculent fungus in it, and analysis has shown in some samples, a strong impregnation of copper, from being made in a vessel of that metal: the green husk of the walnut to impart colour, with pimento, garlic, common salt, and Cayenne pepper, boiled in water, and added to the residue left after the process of obtaining distilled vinegar, has been found to be the composition of some samples. It is, therefore, best for every housewife to make her own Ketchup, and to aid her in the process, we give a good form:—Take 4 pounds of good mushrooms, the large dark sort are the best; break them up, and sprinkle over them about the same weight of common salt; let them stand a day or two, stirring up the mixture occasionally, this should be done in an earthen pan; then strain off the liquor, and add to it 8 ounces of pimento, 1 ounce of Cloves, and 1 of Ginger Root sliced; boil gently about an hour, then strain through a flannel bag; bottle and cork tightly. The residue of the Mushrooms and Spice may be boiled again, for an inferior kind. A quart of Red Wine to every gallon, will make the first boiling very good and rich. (For walnut and other Ketchups, see *Wife's Book of Cookery*).

**KIDNEYS** (Latin *renes*). Two glandular bodies situated in the lumbar region, whose office is to secrete the urine from the blood: their exact position is on either side of the spine, in what is usually called the small of the back, where they lie imbedded in fat; each of them is supplied with blood by vessels which issue directly from the aorta, and from each of them issues a duct called the ureter, which conveys the urine to the *Bladder* (which see). The Kidneys are composed of two very different structural arrangements; the outer, or cortical portion being, as it were, granulated, and the inner being fibrous, arranged in pyramids or cones, with their bases resting upon the cortical substance, and their apices or points opening into a central cavity, the pelvis, or as it has been called, the brain of the Kidney, which may be regarded as an expansion of the upper portion of the ureter, which is about the diameter of a goose-quill, and eighteen inches long, passing behind the bladder, and entering that organ at its lower

part. The granulated appearance of the cortical portion of the Kidneys is owing to the globular expansions of the roots of the capillary tubes, which form the cone-like structures of the inner part, and present, when viewed through the microscope, a very beautiful arrangement, consisting of bundles or fasciculi of hair-like filaments; each bundle together forming what is called a process, and opening into one of the calices of the pelvis, in a nipple-like projection, having several minute orifices. On all these, little canals, called *tubuli uriniferæ*, tiny blood-vessels ramify and spread down to the rounded communicators to which we have just alluded, and which are sometimes called the *corpusecules of Malpighi*; here it is that the urine is secreted or separated from the blood, and from thence it is conveyed by the tubuli into the calices, and then through the pelvis of the kidneys into the ureter, to be received in the great reservoir, the bladder; from thence, by means of muscular contraction, to be forced out by the proper channel, when a sufficient quantity has accumulated.

Each Kidney together forms a firm fleshy mass, which is enclosed in a fibrous capsule, the outer and tougher membrane being lined with a soft and smooth mucous membrane which forms a continuation of that which lines the ureter and the bladder; we need scarcely say that the shape is about that of a kidney bean.

Diseases of the Kidney, or renal diseases, as they are sometimes called, are generally difficult of treatment; the most common are those which result in the formation of *calculi*, or stone, which is sometimes retained in the pelvis, where, by constant deposition, it increases so as completely to fill that and the calices which open into it, causing a stoppage in the flow of the secretion, and a most dangerous state of constitutional derangement. Generally, however, the stone passes through the ureter into the bladder, producing in its passage violent spasmodic pains in the loins, with nausea, and generally hæmorrhage, &c. With this we commonly get inflammation of the Kidneys, or *Nephritis* (which see), from which abscesses and other morbid alterations are likely to result. From chronic inflammation appears generally to arise that alteration in the structure of the kidneys known as *Bright's Disease* (which see); the chief characteristics of which are the deposition of a pale yellowish substance in the interstices of the organs, leading to a granular, or tuberculated form of the surface, and a decreased vascularity of the whole organ,

whose diseased condition is indicated by a dull heavy pain in the loins, a hard pulse, and a secretion of so large a quantity of albumen in the urine, that it coagulates on being heated, or with the addition of nitric acid. This condition of the Kidneys is sometimes the result of hard drinking; it sometimes follows scarlet fever, and usually produces dropsy, in which case we have a bloated expression of countenance. Suppression of urine may be the ultimate result of obstruction of calculus in the ureter, or it may occur as an idiopathic disease; in either case it is a condition of great danger. In common with other organs, the Kidneys are also subject to various morbid growths and depositions, such as cancer, fungus, hæmatodes, melanosis, tubercle, &c.; but the diagnosis of all chronic affections of these organs is very difficult, owing to the similarity in their symptoms; the dull heavy pain in the loins, dropsy, and sometimes hæmaturia, being common to all. We can, therefore, scarcely venture to indicate any particular line of treatment. A medical man should be consulted as soon as possible when there is reason to suspect all is not right with this important organ, to which, we may just observe, that injury often results from long-continued and violent exercise on horseback; also from collections of hardened stools in the colon, as well as from retrocedent gout, a blow, or violent exercise of any kind. More will be said on this subject under the head of *Urine* and the *Urinary Organs*.

**KING'S EVIL.** In Latin *Morbus Regius*, a serofulous disease, the curing of which was formerly attributed to the touch of a king's hand. The practice of *touching for the evil*, as it was called, prevailed in England from the time of Edward the Confessor. The popular faith in this superstitious practice had, in the time of Charles II., arisen to such a height, that no less than 92,107 persons presented themselves to be touched in the course of fourteen years, and of these, it is recorded by Wiseman the king's physician, they were nearly all cured. It was officially announced in the London Gazette of 12th March, 1712, that Queen Anne intended to touch publicly for the Evil; but after this time, the practice was wisely discouraged, and finally dropped by George I., 1714. See *Serofula*.

**KINIC ACID.** A name given by Vauequelin to a peculiar acid, which he first extracted from Cinchona; its salts are called *Kinates*, but are little used.

**KINO.** An extract obtained from several trees of the genus *Pterocarpus*, of the



natural order *Leguminosæ*, but chiefly from the *P. Marsupium*, a native of India; this substance occurs in small angular shining fragments, of a deep reddish brown colour; it is, perhaps, the most powerful of all the vegetable astringents, containing about 70 per cent of tannic acid; hence its use in diarrhoea, dysentery, gonorrhoea, leucorrhoea, and internal bleedings and discharges generally. It is also employed as an external application to foul ulcers, as a gargle to constrict relaxed uvula, and as a styptic. The dose of the Powder is from 1 to 2 drachms; of the Compound Powder (which contains 1 grain of Opium to 20 grains of Kino,) from 10 to 20 grains; of the Tincture from 1 to 2 drachms. (See *Astringents*).

In India an aqueous solution of Kino is used for dying the colour called *nankeen*, in cotton and other cloths.

**KIRCH-WASSER.** A liquor distilled from the fruit of a small cherry tree, and called the Brandy of Switzerland; it is also prepared in the Black Forest and various parts of Germany, as well as sometimes in this country; as an article of luxurious diet, but not being one which we can recommend, we abstain from giving a form of preparation.

**KNEE.** This is one of the most important joints of the body, and perhaps that which is most open to accident and serious affections; it is formed by three bones, viz.: the lower extremity of the thigh bone, the upper one of the larger leg bone, and the *knee-cap*, or "*patella*," which lies on the front of the joint, and receives most of the blows which fall on that part of the body, hence it is not unfrequently broken. Besides protecting the joint in front, this patella affords the muscles of the thigh a leverage, and so enables them to act more powerfully on the movements of the leg. The entire joint is fitted and bound together with cartilages and ligaments, and if these, and the muscular tissues which surround them become the seat of inflammation, very serious mischief is commonly the result. Pressure from much kneeling on the part, violent blows or wounds, and sometimes constitutional causes, will produce this. In any case, there will generally be the outward marks of inflammatory action, redness, swelling, and acute pains, and the best treatment, in the absence of professional advice, is free leeching, with warm fomentations and poultices at first, afterwards cold lotions: the system should be reduced by low diet, and opening medicines; there should be perfect rest for the limb, which had better be slightly elevated.

For treatment of *Fracture* or *Dislocation* of the Knee-cap, (see those heads; also *Patella*). We sometimes have in this joint what is known as "loose cartilage," in which a rounded, gritty body lies loose within the joint and interferes with the motions, causing great pain, and often sickness, and a tendency to fall down, in the patient; this is a purely surgical case, and is not at all open to domestic treatment. For further particulars on this head, see *Leg.*

**KORE.** Greek for the pupil of the eye. Hence we have the following terms applied to operations for artificial pupil, which is technically called *Kore-symphosis*:—1. *Korectomia* (Greek *ektome*, excision), the operation by excision, sometimes called *Iridectomy*; *Kore-dialysis* (the latter word being Greek for loosening), the operation by separation, or *Irido-dialysis*; *Kore-tomia* (Greek *tome*, section), the operation by incision (see *Eye*).

**KOUMISS.** A vinous liquid, made by the Tartars from milk, principally that of the mares; the Turks have something similar under the name of *yaourt*, and the Arabs under that of *liban*. A similar liquor is also prepared in the Scottish isles, but not to any great extent.

**KOUSO.** The dried flowers of the *Bragera Anthelmintica*, of the natural order *Rosaceæ*. An Abyssinian remedy for tape worm, recently introduced into this country. Tannic Acid, and a volatile oil, have been extracted from the plant, and in these its active principles appear to reside. Dr. Plieninger first brought the remedy to Europe in 1834, but it did not come much into notice until 1850; its great expense precluded its extensive employment for a considerable time, but it has lately been imported in large quantities from Aden, and may now be had cheap enough. One great objection to its use is the large quantity required for a dose, viz.,  $\frac{1}{2}$  an ounce of the Powder, which must be infused in warm water, and taken unstrained; it may be rendered a little palatable with honey and lemon juice. Like all anthelmintics, it acts best on an empty stomach; its operation is that of a drastic purgative, yet it should be followed up with a dose of Castor Oil. The drug has, probably, been much overpraised; we do not consider it so efficacious as the Oil of Male Fern. See *Vermyfuges*, *Worms*.

**KRAMERIA TRIANDRIA.** The botanical name of a plant of the natural order *Polygalaceæ*, possessing tonic and astringent properties; it will be more fully

described under its common name of *Rhatany*.

KRIEBEL KRANKHEIT. The German name of a disease, which was endemic at Hesse and Westphalia during a season of dearth in 1597. It has also been called *die Fever-flecke*, *Ignus sacer*, *Mal des ardens*, *Ergot*, &c. It has been placed by Sauvages under the head of *Erysipelas pestilens*, and by Sager, under that of *Necrosis*. See *St. Anthony's Fire*.

LABDANUM or LADANUM. A blackish resin, the product of a species of *Cystus* found in Candia and elsewhere; it is formed into cylindrical pieces, called *Labdanum in tortis*. It has been principally used in stomachic plaisters and perfumes. A preparation, called *Labdanum factitum*, composed of yellow wax and lard, of each 6 ounces, and burnt ivory or bone 4 ounces, was formerly held in some repute.

LABIA, plural of *labium*, Latin for the lip. Hence, we have the terms—*Labia leporina* (from *lepus*, a hare), *Hare-lip* (which see). *Labia pubenda*, the parts of the *pubendum* exterior to the *Nymphæ* (which see). *Labiata* is the mint tribe of dicotyledonous plants, which are universally characterised by the presence of an aromatic volatile oil, and a bitter principle. Many of these plants are used in medicine, such as the Peppermint, Spearmint, &c.

LABORATORY (Latin *laboro*, to labour). A place fitted up for the performance of chemical operations.

LABOUR, in the ordinary sense of the term, as applied to hard work, may well form a subject for a few observations in a work like this, treating of the physiology of health and disease. We have this term from the Latin root *labo* to fail, and we may define it as an exertion of muscular strength, or bodily exertion up to the point of weariness, when the strength fails. Labour is undoubtedly healthful; it exercises the muscles, tends to the development of the physical powers, and promotes a healthy action in all parts of the frame. When God issued the fiat that Man should earn his bread by the sweat of his brow, he beneficently, as well as wisely, ordained, that, in thus labouring for a subsistence he would be also conducing to such a vigorous state of bodily health as would best enable him to enjoy life: work, therefore, is good for all, and none should repine that they are called on to Labour; but rather rejoice in the exercise of that physical strength with which they are gifted, in order that they may be useful to themselves and others. A life of idleness is a life of misery; the bodily and

mental powers waste and decay if they be not exercised: let us then Labour cheerfully, remembering that by so doing we not only promote our own health, but also glorify God; for truly if it be done in the right spirit, *Laborare est orare*—work is worship, as the adage runs.

LABOUR, or *Childbirth*. Under this head it is desirable that we should make some extended observations, as the subject is one of the most important that can engage the attention of our readers. Every prudent female, who has the power of doing so, will make all necessary preparation for an approaching *accouchement*, as the French term childbirth or delivery. She will have been forewarned by certain unmistakeable symptoms that she is about to become a mother; and if this be a new position, a whole world of fresh cares and duties will be opening before her. Through much anguish and suffering, and some danger, she will have to pass, before she can elasp to her bosom the little helpless creature to which she is about to give birth, and feel, with a rapture unspeakable, its heart beat against hers: and when she can rejoice in the knowledge, that a babe is born unto her—when returning strength assures her that her sore travail is for the time ended, there is yet much to make her careful and anxious. The life of the infant hangs by a frail thread, which a slight accident or piece of mismanagement may suffice to snap, and she herself may be easily rendered incapable of bestowing on it that care and attention which only a fond mother can give.

Few women, who are near their confinement, are sufficiently cautious of exposing themselves to unnecessary fatigue and atmospheric changes; they will “keep about until the last,” and it is well for them to do so, provided they take only gentle exercise, and avoid getting wet or chilled, or heated in crowded assemblies, and the like. Miscarriages, difficult labours, and frequently lasting injury to mother and child, if not the death of one or both, is not unfrequently the result of imprudence, at this critical period; therefore would we impress upon all our readers who are likely to become mothers, the duty which they owe to themselves, their friends, and their future offspring, of refraining, when enceinte, as much as possible from the more exciting pleasures and laborious occupations of life, and of preparing for the pains and cares which will shortly come upon them. That they may be in a fit state to bear the first, and perform the second, the bodily health should be strictly attended to, and the mind kept, as free as possible from aught which



would harass and annoy it. Let all the preparations for the little stranger be made in good time, and the services of an experienced nurse engaged. If the advice and assistance of a mother, or other near relative, can be obtained, for this time of trial and anguish, by all means let it be so; then it is that the womanly nature looks for that sympathy and support, which only a woman, and scarcely any other than a mother, can render. Let then, the parent, or some female very near and dear, be at hand to aid and counsel, and, above all, to cheer and encourage the often-sinking heart, not only at the actual period of the Labour, but for some time previously. And let the mother in expectancy be treated with all possible love and gentleness. She may be fidgetty and whimsy, what of that! provided they do not run into outrageous extremes, let her very whims be indulged. She is frequently in a state of great nervous excitement; her body may be racked with pain, and her mind unhinged. Let her be soothed and tenderly dealt with; she has that to go through, at which the strongest man might well tremble, and shrink aghast.

We will suppose that the inevitable hour has come; that the surgeon is ready and skilful; the nurse thoroughly up to the performance of her duties, and the female friend encouraging and self-composed; the Labour pains are regular, and the work of delivery proceeds properly, although, perhaps, slowly. In due time—it may be in two hours, or four or six, or even, in the case of a first child, twenty-four hours, the infant is born, and treated according to the directions given under the head *Infant*. But we are getting on too fast, and must go back to explain what has been, or should have been done to bring about the desired consummation of a safe delivery, and what is of yet more consequence, the safety of the mother and child, and the gradual recovery of the former from the shock which, under the most favourable circumstances, her system will receive. If she be a strong healthy woman, and no unusual complications arise to disturb the natural process, but little aid or interference may be required. There will be the usual warning symptoms—intermitting pains in the back, slight at first, but increasing in intensity; there will probably be a slight discharge of mucus, stained with blood, and perhaps also a considerable discharge of a clear fluid, popularly called “the waters;” this is an albuminous liquid filling up the membrane in which the fetus floats, and so preventing pressure; it sometimes does not escape un-

til Labour has actually commenced by the falling down of the child into the pelvis. When this takes place the recumbent position should be assumed; previous to this it is best for the patient to sit upright or walk gently about, and so assist the action of the uterus.

When the Labour pains become very great, the patient should be placed on the bed, previously guarded by some waterproof material on her left side, and not far from the edge, so that needful assistance can be easily rendered. She should have a tightly-rolled pillow placed between her knees. If there is no unnatural obstruction to the delivery, it is best left to nature; should the patient in the struggle become very faint and weak, a little brandy-and-water may be administered at short intervals, but this must be stopped as soon as the Labour is over, or inflammatory action may ensue. A uterine stimulant may be given if the womb does not contract with sufficient power to expel the child (see *Ergot of Rye*); but this should be only under the direction of the medical man, who ought certainly to be present in all cases of difficult parturition. It would be useless in a work like this, intended for domestic treatment, to give directions for modes of procedure in such cases; only, if a surgeon were unattainable, and if there were actual danger of a patient perishing for lack of assistance, then alone would a nurse be justified in the administration of any such powerful medicine as this, or in attempting to assist the operation of delivery by unusual means.

As soon as the child is born, and the umbilical cord, or, as it is commonly called, the navel string, by which it is attached to the womb, has been tied and cut, as directed under the head *Infant*, a broad bandage or towel should be passed round the body of the mother, so as to cover the hips, drawn tightly, and pinned or tied, so as to sustain a pressure upon the womb, and stimulate the vessels to return to their normal condition. Before this is done, however, it will be best to pull that part of the above-named cord which remains attached to the uterus very gently, and by this means to accomplish if possible the removal of the placenta, commonly called the after-birth, which sometimes comes away with the child, or immediately after, and is sometimes only removed with great difficulty: if, at the expiration of a couple of hours or so, this still remains in the womb, where it will cause irritation, the hand of the nurse or medical man, previously well oiled, must be carefully passed in, so as to grasp and,

without breaking it, to detach it gently from its adhesion, and bring it away, waiting to complete the process until an after-pain comes on. Generally the natural expulsion, or the artificial removal of the placenta is attended with hæmorrhage, sometimes to a frightful extent; (for directions how to proceed in this case, see *Flooding*.)

For at least six hours after Labour, the patient should be disturbed as little as may be. We have seen fussy nurses very desirous of making "missus" comfortable, and begin to put things to rights about her, when she, poor soul! only wants perfect rest and quiet. Let her have it. And if the pulse is thin and feeble, and the cheeks are colourless, and the breathing scarcely noticeable, so that life seems almost ebbing away, put a little, a very little Brandy and Water, warm and sweet, between her lips now and then; but stop it instantly if it produces flushing or restlessness; and do not give it at all unless there seems urgent necessity for a stimulant. At the expiration of the above time, if a revival has taken place, the soiled bed-clothes and body-linen may be changed; but all this should be done very carefully and gently, or the fatigue may occasion a relapse. If the after-pains continue severe at the expiration of the above time, an anodyne draught may be given; it may be composed of from 20 to 30 grains of Tincture of Opium, or a  $\frac{1}{2}$  of a grain of Morphine, in an ounce of Plain or Spearmint Water.

For eight or more days after a Labour the recumbent position should be strictly maintained; and the same rule holds good after a *Miscarriage* (which see). Some women feel so well and strong in a day or two, that they will sit up, and sometimes even get out of bed, and make themselves useful in the house. We have seen a woman at the wash-tub three days after she had been confined; and we have heard of females undergoing the pains of labour under a hedge by the road-side, and in a few hours proceeding on their journey with their babes at their breasts. But these women were semi or entire barbarians; they had not been delicately nurtured. With the immense advantages, we must also take some of the disadvantages of civilization, and those who give birth to children surrounded by all its comforts and luxuries, must not attempt to emulate the Indian squaw, or the scarcely less favoured labouring woman of our own country, in this respect; if they do they will inevitably suffer for their temerity. Getting about too early after childbirth is, perhaps, the most fruitful of all sources of uterine

disease. The consequences may or may not show themselves at once, but whether or no, bad consequences there will most likely be; therefore we warn all mothers to keep their beds long enough; but little exertion should be made until the end of the first fortnight: if there is a necessity for getting about earlier, of course it must be done, for necessity has no law; but unless there is, the risk should not be run; delicate women especially do wrong to attempt it, and the strong will be likely to render themselves weak by the practice. See *Lying In, Milk, Parturition, Pregnancy, &c.*

**LABURNUM.** — This tree, the *Cytisus Laburnum* of botanists, is well known as one of the greatest ornaments of our shrubberies; but not for that reason is it introduced here; we have given it a place as being one of the poisonous plants against which we would warn our readers: its seeds are violently purgative and emetic, producing, when eaten, vomiting, delirium, and stupor, with great pain in the abdomen and violent diarrhœa. The best treatment is to get rid of them, as quickly as possible, by a Mustard or other emetic, and to counteract their depressing effect by Ammonia and Brandy.

**LABYRINTH** (in Greek *labyrinthus*, a winding passage.) A term applied in surgery to several cavities in the ear, situated between the tympanum and the external meatus. These are 1st, the *vestibule*, or entrance into: 2nd, the *cochlea*, which is constituted by the *modiolus* or central pillar, which is encircled by the *lamina spiralis*, and terminates in the small cavity called the *infundibulum*; it is divided by the *spiral septum* into two smaller cavities called the *gyri*, and the aqueduct opens above into the tympanum, and below into the posterior petrous portion of the temporal bones: 3rd, the *semicircular canals*, situated in the substance of the above-named bone, and opening into the vestibule by fine orifices. See *Ear*.

**LAC.** Latin for milk. A term in medicine applied to compounds which have a milky appearance. Preparations which were so called in the old Pharmacopœias, are now termed *Mixtures* and *Emulsions* (which see): thus we read of *Lac Ammoniaci*, *Amygdalis*, *Assafoetida* and *Guaiaci*; Milk, or Mixture, of Ammoniacum, Almonds, Assafoetida, and Guaiacum; and to these may be added, *Lac Sulphuris*, Milk of Sulphur, the washed and precipitated powder of that mineral. Then we, in surgery, apply the term *Lacteals*, to the organs which perform the office of secreting the milk; those glands and minute vessels, situated in the breast (for an



account of which see *Mammæ*); and a *Lactifuge*, is any medicine which checks or diminishes this secretion of the *lactal* fluid as we sometimes call *Milk* (which see.) And again, *Lac luna*, literally milk of the moon, is a white substance resembling chalk, and composed almost entirely of aluina, saturated with carbonic acid.

*Lactation* is the process of secreting or supplying milk, or of nursing; and *Lactic Acid* is an acid obtained from milk, said by Raspail to be nothing more than an albuminous acetate; its salts are termed *Lactates*, and it is said by Berzelius to be found both in the blood and urine. *Lactuca* is the name of a genus of plants which yield a white milky looking juice, as do the Lettuce and the Poppy. *Lactucarium* is the name given by Duncan to the inspissated juices of the former plants, and infantile *aphtha* was formerly called *Lactamina*, from the impression that it was caused by a vitiated condition of the milk suckled by the child, and lastly, a *Lactometer* is an instrument for testing the purity of *Milk* (which see).

**LACERATION.** (Latin *lacro* to tear). A rent; the tearing of any part; the term *lacerated* is applied to two foramina at the base of the cranium, from their rugged or torn appearance. A lacerated wound is always more difficult to heal than a clean cut; and requires more careful treatment. See *Wounds*.

**LACRYMA.** (Latin for a tear; plural *lacrymæ* tears.) The fluid which is secreted by the lacrymal glands, which moistens the surface of the eye. The *Puncta Lacrymalia* is the name given to the external commencements of the two small tubes called the *Lacrymal Canals* or *Ducts*, which go from the internal angle of the eye, and terminate in the *Lacrymal Sac*, an oval bag about the size of a small horse bean. The *Lacus Lacrymaria* consists of a small space in the inner, angle of the eye between the two lids, towards which the tears flow. The *Lacrymal bones* are the two bones of the face which support the lacrymal duct, veins, &c. See *Eye*, *Tears*.

**LACTICA.** The Arabian name for that kind of fever which the Greeks termed *Typhos* or *Typhoidis*. See *Fever*, *Typhus*.

**LACTUCA, or LACTUCARIA.** This substance, called *Thridace* by the French, is the white juice of the garden Lettuce, which exudes from the stalks when they are cut, and is allowed to dry spontaneously; it is narcotic, although less powerfully so than opium, and does not confine the bowels as that gum is apt to do. It is recommended in phthisis and catarrh; the dose is from 1

to 4 grains; it is also sometimes used externally as an opiate. See *Lettuce*.

**LACUNÆ** (Latin, plural of *lacuna*, a little cavity). The excretory ducts of the urethra, vagina, &c.

**LAGOPHTALMIA OR. LAGOPHTALMOS** (Greek, *lagos* a hare, and *ophthalmos* the eye). A term applied to a disease in which the eye cannot be completely shut, on account of a shortening of the upper lid. See *Eye*.

**LAGOSTOMA** (Greek *lagos*, a hare, and *otoma*, the mouth); a term applied to *Hare lip*, (which see.)

**LALO.** The native name for a favourite article of food in Africa; it is made of the dried and pulverised leaves of the Baobab Tree. See *Adansonia*.

**LALLATIO** (Latin *lallo* to sing, *lullaby*). This is a name given by the Romans to that variety of psellismus, sometimes known as lullaby speech; in which the letter L is rendered unduly liquid, or is substituted for an R, as when parable is pronounced pallable. See *Psellismus*.

**LAMB.** This kind of meat, although often recommended for invalids, because tender and easy of digestion, is not in reality so good for them as mutton; not possessing the nutritive properties of the more mature flesh.

**LAMBDA CISMUS.** The Greek designation, derived from the letter *Lambda*, for that affection of speech which consists in a vicious pronunciation of the letter L. See *Iotacismus*, *Lallatio*, *Speech*.

**LAMBOLDAL** (from the Greek letter L, lambda, and *idos* likeness,) The name of a suture of the *Skull*, (which see.)

**LAMELLA** (Latin *lamina*, a scale or plate) applied to the gills of a mushroom, and other parts both of animals and vegetables which have that peculiar structure called *Lamellated*. We also speak of the foliated structure of the bones and other organs as *lamina*, such as the *L. spiralis*, the plate which spirally encircles the modiolus of the *Ear*, (which see.)

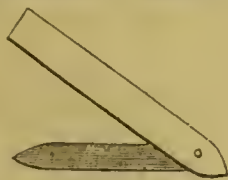
**LAMENESS.** This defective action of one or both legs may arise from a variety of causes, among which may be named *Rheumatic affections* of the joints or muscles, accompanied by *Inflammation*, *Scrofula* in the hip knee or ankle, *Dislocations* of the joints or *Fractures* of the bones, *Debility*, *Paralysis*, or *Natural deformity*. See all of these heads.

**LAMPIC ACID.** An acid obtained by Sir H. Davy from the combustion of ether. It is merely acetic acid with some etherous matter; its salts are called *Lampates*.

LANA PHILOSOPHICA, (Latin for Philosophical Wool). The snowy flakes of white oxide which arise and float in the air from the combustion of zinc, sometimes called Flowers of Zinc (which see.)

LANCET) *Lancette* diminutive of the Latin *lancea* a spear.) An instrument used for bleeding, opening tumours, &c. So familiar to most persons must be the shape and appearance of this useful instrument, that we need scarcely trouble our readers with a description of it: to the medical man it is an indispensable pocket companion, having often to be used on sudden emergencies, in which its immediate application is of vital importance; to the non-professional mind it has associations of sickness and suffering which render it an object of fear and dread; nevertheless, it should have a place in every family medicine chest, nothing being so handy for cutting the skin to extract a thorn, opening a watery bladder arising from a burn or other cause, or a slight abscess to allow the matter to escape; and with the aid of its sharp-pointed blade such simple operations as these can be easily performed by the careful nurse or mother, who should accustom herself to the use of it, that she may be ready to act with boldness and skill when called on to do so.

We have, already under the head of *Bleeding*, given some simple directions for the use of the Lancet, which should always be kept perfectly sharp and bright; especial care being taken to clean it after it has been dipped in vaccine or other virus, or brought into contact with matter of any kind. In addition to the directions already given, under the head above referred to, we may here observe that the proper position of the Lancet, when used, is about the same as that in the annexed diagram, or perhaps,



generally speaking, with the handle and blade more nearly at right angles, although not quite so; the blade should always be grasped firmly between the thumb and forefinger, as represented at page 101, vol. 1; at least a short distance from the point—half an inch will in most cases be sufficient, certainly for simple domestic operations. Good Lancets can be purchased at about 2s. 6d. each, in tortoiseshell handles; inoculating Lancets, which have grooved blades, are

somewhat dearer, so are gum Lancets, of which a cut is given at page 39, of the present volume. Lancet cases may be had at any price, from 6d. up to half-a-guinea or more, according to the material and finish; the plain leather are as serviceable as any for the medicine chest; for the pocket, wood or silver are best.

LAND-SCURVY. An eruptive disease presenting circular spots, stripes and patches, scattered over the arms, thighs, and trunk. Bateman calls it *Purpura hæmorrhagica* from its being occasionally attended by hæmorrhage from the mouth, nostrils or viscera. German medical writers term it *Morbus Muculosus Werthofii*. See *Skin Diseases*.

LANGUOR is generally indicative of debility which arises from disease; it may be either true or false, and, in either case, may be referred to *Weakness* (which see).

LAPIDELIUM. The name of an instrument shaped like a spoon, formerly used to take stones out of the bladder.

LAPILLUS (dim. of *Lapis*, a stone). A little stone; hence we have *Lapilli crancorum*, Crabs' Stones, or as they are often called *Crabs' Eyes* (which see), also *Cancer*.

LAPIS (Latin for a stone, plural *lapides*). A term applied to several remedial agents native or prepared; thus we have *Lapis bezoar*, a concretion found in the stomach of certain animals, such as gazelles and antelopes; the oriental, or eastern, was formerly considered of great value, and fetched a high price; the occidental, or western, was always much cheaper, because more plentiful and generally substituted for the dearer kind. There was also a factitious *Lapis bezoar*, said to have been made of Bole Armenian and dried Blood, equal parts, mixed up with Mucilage of Gum Acacia, and then dried to look like the pure article. It is conjectured that the name Bezoar comes from the Persian *Pād zahr*, expeller of poisons; as from early times, and particularly in the East, these animal concretions were regarded as possessing great medical virtues, and as being antidotes against poison; their rarity, and their supposed virtues have given them so high a value, that they have sometimes been sold at ten times their weight in gold. The greater number of Bezoars were obtained from the ruminating animals; they are undoubtedly the result of morbid action, and consist chiefly of Phosphate of Lime. *Lapis calaminaris* (Latin *calamus*, a reed); this is an impure Carbonate of Zinc, called Calamine, because it was formerly supposed to be manufactured of a kind of reed (see *Zinc*).



*Lapis calcareus* (Latin for limestone); this consists of Carbonic Acid and Lime, with Argil, Silex, Magnesia, and Oxide of Iron; it is used to form Lime for pharmaceutical purposes (see *Lime*). *L. contrayerva*; this is the *Pulvis Contrayerva Compositus* of the old Pharmacopœias (see *Contrayerva*). *L. dentalis*; the outer portion of the tooth, called by Gray, Tooth-shell, by others *Dentalium* or *Dentalis* (see *Teeth*). *L. divinus*; the name given by Beer to a composition of Subacetate of Copper, Nitrate of Potash, and Alum melted together in equal proportions for an eye lotion; it was sometimes called *L. ophthalmicus*. *L. hæmatitis*; an iron ore sometimes used to stop bleeding at the nose (see *Bloodstone*). *L. infernalis*; an old name for the *Potassæ eum eale*, or caustic *Potash* (which see). *L. manati*; Manate stone, the tooth of the sea-cow, used in the manufacture of artificial teeth; there is a spurious kind very similar in weight and hardness. *L. medicamentosus*; a preparation of Alum, Litharge, Bole Armenia, Coleothur, Vitriol, and Vinegar, boiled together, formerly held in great repute, but now gone out of use. *L. prunellæ*; this is the *Sal Prunellæ*, or sore throat salt, a composition of Nitre and Sulphur, melted together and pressed into moulds; it is found serviceable to suck in throat affections; it is now generally met with in the shape of small round balls, or flat cakes, and is, perhaps, the most agreeable way of taking pure Nitrate of Potash, than which it is little else. *L. pumex*, Pumice stone; a light spongy kind of stone, the result of volcanic action, which swims upon water, and is used, when finely powdered and levigated, as an ingredient in *Tooth-powder* (which see).

**LAPSANA COMMUNIS.** A native plant, formerly used for soreness of the papilla or nipples; it is mentioned by some old medical writers, but we have failed, from the slight allusion made to it, to identify the plant; it does not appear to be employed medicinally in this country now.

**LAQUEUS GUTTURIS** (Latin for a noose of the throat.) Applied to a malignant inflammation of the tonsils, which causes a sensation of suffocation, as if the passage were constricted by a noose.

**LARCH.** The *Larix Europæa* of botanists; a species of pine, found in most of the mountainous districts of Europe: its bark yields a resinous juice, from which we obtain the substance called *Venice Turpentine*; it also secretes a kind of glue, called *Oreburg Gum*, and in the spring the

buds are said to be covered with a resin analogous to the much-prized Balm of Mecca. In some parts an exudation ap-



pears on the leaves of the tree, which concretes into what is called the *Manna of Briançon*.

**LARD.** This is the *Adeps suillus*, or fat of the hog, much used in culinary operations, as well as employed as the basis for various kinds of ointments and plaisters. See *Adeps*.

**LARYNGISMUS**, commonly called Spasmodic Croup, from its resemblance to that disease, is a sense of suffocation in the Larynx; it may arise from inflammation, or some other cause, peculiarly affecting the vocal organ.

**LARYNGITIS** is the scientific term for inflammation of the Larynx; it affects more especially the mucous membrane which covers the glottis and epiglottis, and, although sometimes limited to the Larynx itself, yet frequently extends to the tonsils, fauces, and upper part of the throat. It is usually attended with the common febrile symptoms, in conjunction with restlessness and anxiety, a hard pulse, and frequently a harsh cough also, and difficulty of breathing and swallowing; the former is peculiar, the inspiration being attended with a clogging kind of noise, and a protracted wheezing, as if the air were being drawn through a dry reed; there is considerable pain at the hard projecting part of the throat, which is increased

by pressure ; sometimes there is hoarseness and loss of voice, the patient speaking only in a whisper, or being unable to do more than move the lips ; then, as the disease proceeds, the countenance becomes livid and ghastly ; the eyes protrude, and are probably blood-shot ; there is gasping and signs for more air : finally, drowsiness, delirium, and death by strangulation, unless relief is afforded. These severe symptoms are owing to the thickening and swelling of the mucous membranes, and effusion of serum into the surrounding parts, narrowing, and finally closing up the air passages. The great American statesman, Washington, died of this disease, and several distinguished physicians have been its victims ; but it must not be confounded with *Diphtheria*, which we have described under the head of *Herpes Malignum*.

The most natural mode of *treatment* is to apply, as early as possible, fomentations, as hot as they can be borne, to the throat, so as to produce redness of the skin ; then draw blood, by cupping from the nape of the neck, and apply a blister to the upper part of the breast bone ; administer a dose of Calomel, about 4 grains, with a  $\frac{1}{4}$  of a grain of Opium ; this is as far as domestic treatment can be safely carried, and so much as this should not be done without professional advice, if it can be obtained ; but these cases are commonly urgent, and something should be attempted *at once*. In the more advanced stage of the disease common medicine has little effect, and the surgeon must resort to *laryngotomy*, that is the operation of making an opening into the Larynx, through which the patient may be enabled to breathe ; and this operation is the only resource when suffocation is threatened by closure of the Larynx from any accidental cause, such as swallowing caustic acids, alkalies, or boiling water.

Chronic Inflammation of the Larynx will be likely to follow the acute form of the disease ; in this we commonly have persistent hoarseness and loss of voice. The best *treatment* in this case is counter irritants applied to the throat : if these are ineffectual, three or four leeches, to the upper part, externally, twice a week, for a month or two ; and a strong solution of Lunar Canstic, internally, by means of a camel hair brush ; the bowels should be kept open, and the diet rather low. Sometimes the disease has a syphilitic origin, and in this case the treatment must be rather general than local ; (see *Syphilis*).

**LARYNX.** Greek for the upper part of the Trachea, situated immediately under

the Os hyoides ; or, more popularly speaking, at the upper part of the windpipe ; it may be regarded as more especially the vocal organ, and therefore we shall devote a considerable space to an explanation to its anatomical construction. The Larynx then, is a short tube constructed in the middle something like an hour-glass ; it is composed of cartilages, ligaments, muscles, vessels and nerves, and mucous membrane, which forms the lining. The cuts which we have caused to be engraved, to aid in the description of our subject, are as follows :—Fig. 1 represents a vertical section

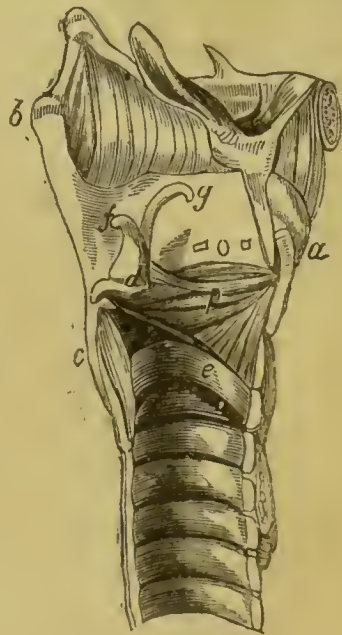


Fig. 1.

the Larynx showing its ligaments ; 2, a posterior view of the same ; 3, a side view, with one ala of the thyroid cartilage removed : these three are from Wilson. In fig. 4 we may suppose ourselves looking from above into the larynx, the mucous membrane being removed to show the ligaments, muscles, &c. We will take first the cartilages, as being the most easily disposed of ; they are six in number, viz.—1, the *thyroid* cartilage, which is the largest in the Larynx. consists of two lateral portions, or *ala* (fig. 1, *a*) ; these meet and form an angle in front, which projecting externally forms the protuberance known as “Adam’s Apple,” which is most obvious in the male, and after the age of puberty ; at the back of each ala, which is nearly square, are two horn-like formations, one projecting up and



the other down: these are called the *superior* and *inferior cornea* (fig. 1, *h* and *e*); the attachment of the epiglottis (*b*) takes place

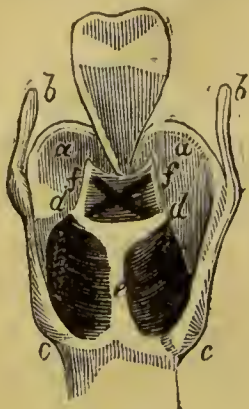


Fig. 2.

on the angle formed by the meeting of the two *alæ* (*h*); and here, too, on the inner side, are attached the vocal chords and the *thyro-arytenoid* and *thyro-epiglottideus* muscles: upon the two rounded surfaces of the *cricoid* cartilage, which is a ring broad behind but narrow in the front, lie the two *arytenoid cartilages*, which are of a triangular form (fig. 1, *d*), the apex of each above being prolonged by the two small fibrous cartilages, termed the *cornicula* (*f*). Attached to the middle of the external surface of the arytenoid (*g*) are the *cuneiform* cartilages, cylindrical in shape, being somewhat compressed in the middle; and lastly, we

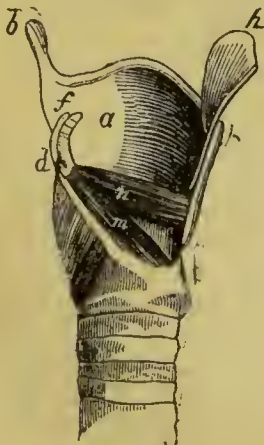


Fig. 3.

have the *epiglottis*, placed directly in front of the opening of the larynx, and closing it like a trap-door, when it is drawn beneath the tongue, in the act of swallowing.

The *Ligaments* of this curious and complicated organization are too numerous to be all particularly described; those, upon the arrangement of which the vocal power principally depends, belong to the arytenoid cartilage; they are eight in number, four of them being the *capsular* ligaments and *posterior* bands, whose office it is to protect the joints between the arytenoid and cricoid cartilages; there are also a pair of *superior thyro-arytenoid ligaments* (or false vocal cords) which consist of two thin bands of elastic tissue, with front and back attachments, the first being to the internal angle of the thyroid cartilage, and the last to the inner and anterior edge of each arytenoid cartilage (fig. 1, *o*.) There is, besides, a pair of *inferior thyro-arytenoid ligaments* (or true vocal cords) which are thicker than the superior pair, although, like them, composed of elastic tissue; the attachment of each in front is to the angle

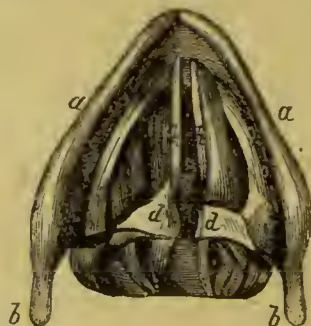


Fig. 4.

of the thyroid cartilage, and behind to the anterior angle of the base of the arytenoid. The space between the two ligaments assumes on each side the form of a pouch, which is called the *ventricle* of the Larynx, and the slit between the two true vocal cords is the *glottis* or *rima glottidis*. We get a good view of these parts in fig 4, where *a a* is the thyroid cartilage with its superior cornua (*b b*); while *d d* indicates the arytenoid cartilages, and *p p* the vocal chords with the *rima glottidis* between them. In fig. 1 we see these ligaments of the Larynx which run to the thyroid cartilage, with the *os hyoides*, or bone of the tongue (*i*); these are also those which connect it with the cricoid, and others, which we need not mention.

Of *Muscles* of the Larynx there are eight; five being concerned in the movements of that organ in the utterance of vocal sounds, and three in those of the epiglottis; these muscles are named from their attachments: as 1st, the *crico-thyroideus*, which is stretched

between the anterior surface of the cricoid cartilage, and the lower and inner border of the ala of the thyroid; 2nd, the *crico-arytenoideus posticus*, which is attached to the posterior surface of the cricoid cartilage, and to the outer angle of the base of the arytenoid (fig. 2 *l*); 3rd, the *crico-arytenoideus lateralis*, which is attached to the upper border of the side of the cricoid cartilage, and to the outer angle of the base of the arytenoid (fig. 3 *m*); 4th, *thyro-arytenoideus*, which is attached to the angle of the thyroid cartilage, and to the base and outer surface of the arytenoid (fig. 3 *n*); 5th, the *arytenoideus*, which occupies the space between and behind the arytenoid cartilages, consisting of transverse and oblique fibres (fig. 2 *k*). These are the five which belong especially to the Larynx; those of the epiglottis consist of scattered fibres, which being attached to it have the power of raising or depressing it, but have no action on the vocal organs. Bishop, than whom we could not quote a better authority, states that the crico-thyroidal muscles are tensors of the vocal chords, and regulate their tension, position, and vibrating length.

The *Arteries* of the Larynx are derived from the superior and inferior branches of the external carotid. The *Nerves* are the superior and recurrent laryngeal, both of which are branches of the pneumogastric nerve, and thus are derived from the brain itself, or that portion of it called the *medulla oblongata*.

All the parts here described are covered somewhat loosely with the mucous membranes, which, in the cuts, is removed to exhibit the peculiarities of structure. The upper aperture of the Larynx may be described as a triangular or heart-shaped opening, having the broadest part in front, where it is bounded by the arytenoideus muscle; on either side of the opening lies a fold of mucous membrane, which stretches between the epiglottis and the arytenoid cartilage; at the back lies the epiglottis. The cavity of the Larynx has an oblong constriction, which divides it in two parts; this constriction is produced by the prominence of the vocal chords, above and below which the Larynx spreads out in a triangular shape; the circumference of the cylinder corresponding with the ring of the cricoid cartilage. The glottis is in the form of an isosceles triangle; it is bounded on the sides by the vocal cords, and behind by the arytenoideus muscle; in the male it is somewhat longer than the female, measuring about  $\frac{3}{4}$ ths of an inch. (For more particulars on this head, see *Throat, Voice*.)

The *Glands* of the Larynx are those of the epiglottis, the arytenoid, and thyroid glands.

**LASERPITUM.** An old name for the herb Masterwort, *Astrantia Major*, the gum of which was called *laser*. Pliny applied the term to assafœtida, which the ancients used as a condiment; by some, benzoin is so termed.

**LATERAL** (Latin *latus* or *laterus*, the side). Hence the term it is applied to an operation in cutting for the stone. See *Lithotomy*.

**LATERITIUS** (Latin *latis*, a brick). A term applied to the red sediment deposited from the urine in some stages of fever; it has been said to constitute a peculiar acid, which Prout has called *Rosacic*; its essential constituent is Lithate of Ammonia, and sometimes of Soda, and it owes its colour partly to the colouring matters of the urine, and partly to the purpurates of the same bases.

**LATIBULUM** (Latin *lateo*, to hide.) The fomes or hidden matter of infectious diseases. See *Infection*.

**LATISSIMUS DORSI** (Latin superlative of *latus* broad, and *dorsum* the back). A flat muscle situated in the back, and side of the lower part of the Trunk. It moves the arm backwards and downwards; or brings the body forward when the hand is fixed.

**LAUDANUM.** The common name for Tincture of Opium, and the form in which that drug is most frequently administered as a medicine: 19 minims of the Tincture yields 1 grain of the Gum, which, however, contains some impurities, it is therefore safest to reckon its strength as 1 in 20; it is narcotic, sedative, and being made with spirit, is also, to a certain extent, stimulant and antispasmodic. For relieving pain, wherever situated, to diminish irritation, and to procure sleep, it is one of the best medicines we possess: in cases of spasmodic cold, or simple spasm, it is best given in Brandy and Water, or with Sal Volatile or Ether; in fever it should be combined with some saline, until moisture begins to appear on the skin: in diarrhoea and dysentery, its combination should be with Chalk and aromatics, or with an acid, as the diluted Sulphuric, or with Starch as a elyster. In cases of local pains and spasms it may be mixed with Camphorated or some other stimulant liniment, and rubbed into the parts affected. For internal administration the dose is from 10 to 25 minims, which may be increased to 50 minims, in violent spasm. (See *Opium*.)

The Liquid Laudanum of Sydenham is the original of the Wine of Opium, than



which it is twice as strong, 1 fluid drachm containing 10 grains of the drug.

LAUGHTER is generally considered conducive to health—hence the phrase, “Laugh and grow fat.” Not always, however, is it so. Sometimes it is symptomatic of a diseased condition of the brain, or of hysteria; and when it arises from an excited condition of the nervous system, as in the case of natural laughter, it may, if excessive and prolonged, occasion serious consequences, passing into *Convulsions* (which see). Hence the danger of tickling children or grown persons to make them laugh immoderately. As an indication of mirth and cheerfulness of spirit, it is good and pleasant to see; and there is something very exhilarating in the sound of a clear ringing laugh: but for the senseless laughter, which bespeaks the vacant mind, it is healthful neither for soul nor body; but is like that which Solomon describes as the crackling of thorns under a pot. See *Mirth*.

LAURINEÆ. The scientific name of the Cinnamon tribe of dicotyledonous plant, of which the genus *Laurus* contains many familiar examples, such as the *Cinnamon*, *Cassia*, *Camphor*, and *Sassafras* (all of which see). The *Laurus Nobilis*, or Bay Tree, is the typical, or characteristic plant of the genus; its young shoots and leaves contain a considerable proportion of Prussic or Hydrocyanic Acid, which imparts the peculiar flavour so highly valued in custards and confectionery. Cases of poisoning have occurred from the use of the distilled Laurel Water, which, however, is not always prepared from the leaves of this tree, but often from those of a species of Cherry, the *Prunus Lauro-cerasus* of botanists, belonging to the order *Amygdalæ*. Its various preparations, such as Infusion, Oil, and Water, are used internally as sedative, in cases of gastric neuralgia and dysentery; they are also applied externally to cancerous sores, burns, and other painful affections; they are scarcely to be recommended in domestic practice for internal administration on account of their poisonous properties. The common Laurel leaves are sometimes scalded, and used as a sedative poultice; they should be bruised and soaked for some minutes in the boiling water, and applied in a considerable mass, so as to retain the heat for a considerable time.

LAUREL ROSE. The *Nerium Oleander* of botanists; a poisonous plant, whose dried leaves are powerfully emetic. This is one of our most beautiful window plants, but it should be borne in mind that there is death in its very perfume; its emanations are so

subtle that serious mischief has resulted from inhaling them. Oleander, or Rose Bay, are the names by which it is commonly



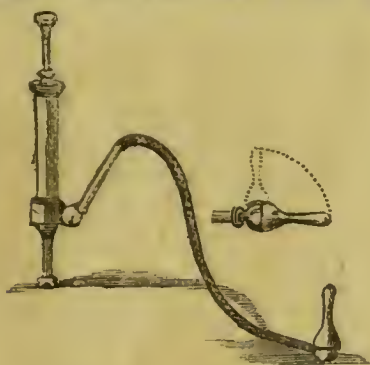
known. Oil in which the leaves are infused is sometimes used as a liniment in cutaneous diseases.

LAURINE. An alkaloid discovered in laurel berries, and also in the kernels of peaches; it is highly poisonous, and has not, that we are aware of, been used medicinally.

LAVENDER (scientific name *Lavendula Vera*). A plant of the natural order *Labiata*, well known to most persons. Its flowers contain a volatile oil, which is obtained by distilling. There is another species, the French Lavender, *L. Spica*, which yields an inferior kind of oil. The oil of Lavender is warm, aromatic, and carminative. It is useful as a stimulant in cases of debility, and as a corrective adjunct to other medicines. The dose of the Oil is from 5 to 10 minims; of the Spirit and the Compound Tincture,  $\frac{1}{2}$  a drachm to 2 drachms. This latter preparation is commonly known as Lavender Drops; it is taken as a cordial stomachic, to relieve flatulency, and as a remedy for depression of spirits. Lavender Water, besides being used as a perfume, is also sometimes put into mixtures as an aromatic adjunct. The Oil of Lavender, with equal quantities of Lard and Butter of Cocoa, makes a good application to stimulate the growth of the hair.

LAVEMENT (Latin *lavo*, to wash.) This is the term sometimes used for a clyster, enc-

ma, or injection, under which heads we have described the preparations generally, used for such purposes and also the mechanical appliances; (see *Instruments* and *Syringe*). We give here a cut of one



f the commonest forms of the Lavement apparatus; it is of brass with revolving side branch and rectum pipes, requiring no screw to connect the parts, and having an extra pipe for children, with tube and shield for uterine injections. It may be obtained of any surgical instrument maker.

**LAVER.** The name of a species of fucus, or sea-weed, sometimes eaten as a delicacy. See *Fucus*, *Ulva*.

**LAVIPEDIUM** (Latin *lavo*, to wash, *pes* the feet.) A bath for the feet. See *Baths*.

**LAWSONIA INERMIS.** An Egyptian plant of the natural order *Salicarie*, chiefly used by the natives as a dye. From it is pre-

pared the henna used to stain the nails, and sometimes the teeth, of the ladies of the harem, &c.

**LAXATIVES** (Latin *laxo*, to loosen). Mild *Purgatives* (which see); also *Aperients* and *Cathartics*.

**LAXATOR TYMPANI** (Latin *laxo*.) A muscle of the tympanum attached to the handle of the malleus. See *Ear*.

**LAZARETTO** (Italian *lazzaretto*, from *lazzaro*, a leper.) A pest house, or establishment for facilitating the performance of quarantine, and particularly the purification of goods arriving from places infected with the plague, fever, or other contagious or infectious diseases.

**LEAD.** This, as our readers well know, is one of the softest and most useful of metals, extensively applied to artistic and scientific purposes, but it is not of such application that we are here to speak, except in so far as relates to domestic economy and the science of health. *Cerussa*, or *Plumbum*, is the Latin name of the metal; the ancients called it *Plumbum nigrum* (Black Lead), to distinguish it from Tin, which they called *P. album* (White Lead). The Black Lead of our day is Plumbago, which is a carburet of Lead, chiefly used for making pencils; the White Lead is produced in the form of flakes, by the action of the vapour of vinegar on the metal; the chief use of this is in painting; when dissolved in acetic acid and crystallized, it is termed Sugar of Lead: of this we shall have to speak presently. Another common preparation is Minium, or Red Lead, employed chiefly as a pigment.

Preparations of Lead are used medicinally as astringents, both externally and internally, and are also given as antispasmodics and sedatives; to check hæmatopsies and other forms of bleeding they are administered, as well as in fluxes of the bowels and urino-genital organs; and their application in the form of lotions, ointments, and plasters, to inflamed surfaces, is commonly of great service. It should be borne in mind that all these preparations are very poisonous, and therefore unfit for internal use, except under medical advice; the chief of these are employed as under:—

*Acetate of Lead* (*Plumbi acetat*) is the form generally adopted for internal use; it is given in hæmatemesis, diarrhœa, and dysentery, in doses of from 3 to 5 grains; it also forms astringent lotions, injections, and ointments.

*Diacetate of Lead* (*P. diacetat*) is the Sugar of Lead before spoken of; in strong solution it constitutes Goulard's Extract;





in weaker, Goulard Water: cooling and astringent lotions for inflamed parts, collyria for various ophthalmic affections, and injections for gonorrhœa and leucorrhœa are made from these.

*Carbonate of Lead* (*P. carbonas*), generally known as White Lead. The powder is mixed with lard, to form a cooling ointment, and is used dry as an absorbent and astringent.

*Chloride of Lead* (*P. chloridum*), has been used as an astringent wash for cancerous ulcers; it is only applied locally.

*Iodide of Lead* (*P. iodidum*). Sometimes given as an alternative and resolvent in scrofulous affections, in doses of from  $\frac{1}{2}$  a grain to 3 grains; is also applied in the form of ointment to ulcers and tumours of an indolent and strumous character.

*Nitrate of Lead* (*P. nitras*), resembles the acetate in its character; it is the basis of Ledoyen's Disinfecting Fluid.

*Nitro-sacchate of Lead* (*P. nitro-saccharus*). A salt recommended by Dr. Hoskins, of Jersey, as a solvent for urinary calculus, to be used in solution as an injection into the bladder.

*Semi-vitrified Protoxide of Lead* (*P. oxidum semi-vitreum*), commonly called Litharge, not used internally, but for making plaisters, which are applied to tumours, inflamed and diseased parts generally, as a resolvent and protector. This oxide is contained in many cerates, and other local applications.

*Tannate of Lead* (*P. tannas*), makes a good application for sloughing bed-sores, chapped nipples, &c., in the form of ointment. In the Pharmacopœias of London, Edinburgh, and Dublin, we find various formulæ, of which some preparation of Lead forms the chief active ingredients, but only one for internal administration—this is the Opiate Lead Pill, useful in diarrhœa, dysentery, and inward bleeding. Each pill should contain 3 grains of Acetate of Lead, and  $\frac{1}{2}$  a grain of Opium.

The large employment of Lead in the manufacture of cisterns and water-pipes, has, no doubt, been productive of much serious mischief; of that which results to those who are obliged, frequently, to inhale Lead fumes and handle the metal, we have already spoken, under the head of *Colic* (which see).

We meet with this metal in so many forms and combinations, that it is extremely difficult to avoid imbibing it into the system. It enters into the glaze of earthenware and other vessels, and may be partly dissolved in acid or fatty matters, especially when

new. With the yellow chromate, or the white carbonate our confectionery is often coloured; sour wine has been sweetened with the oxides, or impregnated with the metal left in the bottles in the process of cleansing with shot; rum and cider are apt to contract Lead in the manufacture; and a room newly painted with Lead colours will give out, in the drying, poisonous vapours. Those who play with enamelled cards should keep them out of the way of little children, or their propensity for sucking everything they lay hold of may lead to serious consequences; and those who use hair-dyes, or leaden combs, must not be surprised if they have an attack of painter's colic, the result of small doses of Lead taken into the system. When the dose is large, there will be almost immediately spasmodic pains, followed by vomiting and extreme depression. In such a case, Vinegar should be the first remedy administered, to be followed up with  $\frac{1}{2}$  a drachm of Sulphate of Zinc, in warm water, or Sulphate of Magnesia, in 2-drachm doses. The acid converts the Lead into one of its least poisonous salts, which is decomposed by either of the sulphates. Lead-poison in the system, if it has accumulated there, is indicated by a bluish line along the gums, at their junction with the teeth.

LEAKE'S PILLS OF HEALTH, or *Pilula Salutaria*. A mercurial preparation, once in high repute for the cure of syphilis; it is very similar in composition to *Plummer's Pills*.

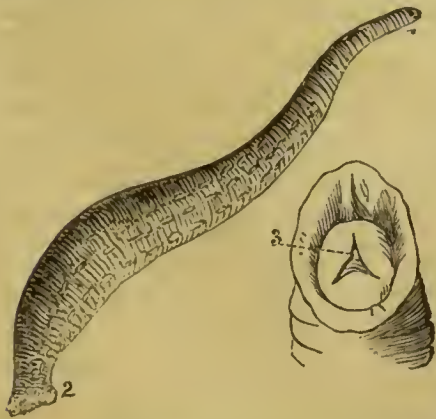
LEAMINGTON WATERS are especially recommended for derangements of the stomach, in which there are no inflammatory complications; also for obstructions of the liver, chronic gout, with constipation of the bowels, acne, and other eruptive diseases. The composition of these waters, according to a resident physician, is this:—Muriate of Soda, 40·700 grs.; Sulphate of Soda, 40·398; Muriate of Lime, 20·561; Muriate of Magnesia, 3·266. The gases of which they are composed are Carbonic Acid, Azote, and Oxygen, in the proportion of 3·102 cubic inches of the first. 0·573 of the second, and 0·075 of the last. "The climate of Leamington," says the above authority, "is more mild and equal than the greater part of the inland watering-places; it is neither exposed to sudden gusts of wind, nor to the frequent rains which a mountainous neighbourhood so frequently attract."

LEAPING AGUE. The name of a disease occurring in some parts of Scotland, the chief characteristic of which is a morbid desire to leap and run; it is intermittent, and therefore called ague, but ought probably

to be considered as a kind of St. Vitus' Dance.

**LEBARAGUE'S SOLUTION.** A disinfecting fluid, consisting of Soda and Chlorine; it is analogous to the well-known bleaching liquid, which is a solution of Chloride of Lime. See *Disinfectants*.

**LEECH** (in Latin *hirudo*, plural *hirudines*). The Leeches are a family of annulose, or red-blooded worms, placed by Cuvier in the third order of *Annelida*, and called *Hirudinidæ*; several species are known to us, but two only are recognised as fit for medical purposes in this country; they are respectively known as the "Brown," or "Spotted," and the "Green Leech," the former, which is generally the smallest, being considered the best. The Horse Leech, which is a native of our ponds and ditches, is sometimes, but not often, used; it does not bite well, and makes too large a wound when it does; (for a cut of this, see vol. 1, p. 86, under head *Bdella*.) We obtain most of our Leeches from Hamburgh, where there are merchants who collect them from different parts of the continent; many of them from Sweden, Poland, and Hungary. In France, leech-breeding in tanks, and other artificial reservoirs, has lately been much attended to; it is found that they are five years before they come to a state of maturity, and until they do this they are quite unfit for medical purposes. The general appearance of this useful animal must be familiar to our readers, but few of them, perhaps, are aware of those peculiarities of structure which enable it to perform the office of blood-sucker, on which its chief utility depends; by the aid of a diagram we will endeavour to explain this:—



Let it be understood that the narrowest end (1) is the sucking mouth, the broader end being the tail (2) this is simply provided

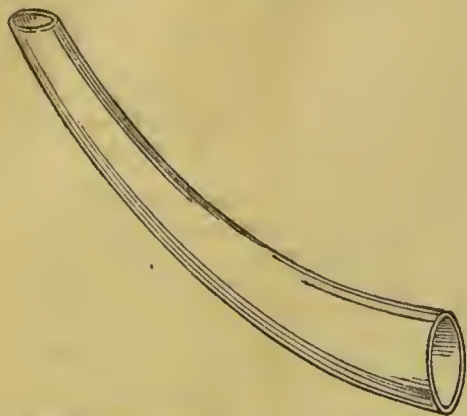
with a sucker, by which it holds fast to any object. The small cut gives us a front view of the mouth opened, exhibiting the three mandibles or jaws (3), the edges of which are set with minute teeth; by means of these the animal perforates the skin after it has been drawn up by the mouth: by the mandibles it seems likely that the edges of the wound are kept apart, and they form a kind of tube through which the blood passes until the animal is gorged, when it looses its hold and drops off.

Upon an average, Leeches are said to take about one drachm of blood each, which, with what flows after, may be increased to  $\frac{1}{2}$  an ounce; this may be taken as the basis of calculation required as to the quantity to be abstracted.

It is, however, impossible to regulate the flow very nicely by this method of phlebotomy; therefore, in all cases where bleeding or cupping can be at all conveniently performed, one or other of these means should be resorted to: when Leeches are applied, it should be over a bone, against which pressure can be made, if necessary, to stop the bleeding, and never on a soft part, such as the neck or abdomen; especially with children, who have sometimes died from loss of blood, the flow of which it has been found impossible to stop, in consequence of there being no basis for the application of pressure. The best and simplest way of applying Leeches, is to confine them to the desired spot within an inverted wine-glass, through the sides of which it can be seen when they have bitten; a large pill-box, which is sometimes used, has not this advantage, and must be frequently lifted, by which the animals are disturbed, and bites sometimes prevented. Putting them on individually, holding the Leech by the larger end in a towel or napkin, is a very tedious process, and letting them crawl at will over the surface, a very uncertain one as to the exact spot on which they will fasten. If it is to such a part as the interior of the mouth from which the blood is to be extracted, a Leech-glass, shaped like that in the accompanying cut, must be used in this manner:—Put the Leech, head-foremost, into the broader end of the glass; it will naturally slide to the smaller end, which must be applied to the gum or other diseased spot, so that the creature cannot escape, and if at all inclined to bite will soon do so; the glass must be kept in this position until the sucking is over, and the hold of the Leech is loosened, when it can be removed without any unpleasant contact

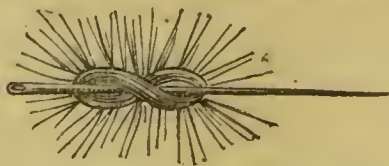


with the mouth. This mode can also be adopted with the vagina, or other part near the surface of the body whence it is desirable to abstract blood.



bled to death. Generally, pressure, firmly and judiciously applied, will be sufficient.

It should be borne in mind that leech-bites, after the bleeding has apparently



stopped, will sometimes burst out afresh; therefore children who have been leeches and put to bed ought to be carefully watched. It is best, if possible, to avoid applying Leeches to a child towards night on account of this danger.

In persons predisposed to inflammation, a leech-bite will sometimes assume an angry, erysipelatous appearance. Perhaps there will be considerable swelling and pain, but this is generally subdued by the application of Goulard Lotion.

Before applying a Leech it is best to let it crawl for a short time on a clean dry napkin or towel; and if after that there is any difficulty in getting it to fix, smear the part with a little milk and sugar mixed, and made rather warm. If, in consequence of cold, the creature appears sluggish and inactive, put it into water at a temperature of about 70°, with a couple of table-spoonsful of porter in it. Should it be desirable to detach the Leech before it has done sucking, do not pull it off forcibly, but sprinkle a few grains of salt on its head. The old practice of putting the creature when gorged into a plate of salt, is not a good one; the better plan is to immerse it in a solution, not very strong, of this substance, and when it has thrown up as much blood as it will, to "strip" it thoroughly, by holding the tail end firmly between the finger and thumb of the left hand, and drawing it steadily between those of the right, nearly up to the head. This is a disagreeable process, but it is the most effectual for cleansing the animal, so that it may be preserved for future use. It should be put into clean fresh water, which, for the first three or four days, should be changed twice a day, afterwards every four or five days will do. The temperature of the water should not be lower than 50° Fah., and the place in which it is kept should be airy, and free from strong odours. The vessel, a wide-mouthed jar or bottle, about half-filled, with a little clean sand at the bottom; the top covered with a piece of muslin or gauze. Very pretty Leech aquariae are now sold at a moderate price. Of one of

Leeches are unable to bite where the skin is very hard and tough, and they will seldom fix where there are any hairs; if the surface on which they rest is not smooth and soft, they will often drop off before they have sucked their fill, and this is too likely to occur if they are suffered to depend from the point of suction. When they come off, it is usually desirable to encourage the flow of blood, and to this end a hot bread or bran poultice should be applied, or if this is objectionable on account of the moisture, several folds of linen made quite hot and placed over the bites will do; this should be replaced with dry folds when they become saturated with blood. In many cases, however, and especially with children, the difficulty is to stop the bleeding before it proves too exhausting; this may sometimes be accomplished by placing a pad of lint over the bite, and keeping a firm pressure on it with the forefinger for some minutes, that is, supposing there is bone beneath to press upon. When the flow seems arrested, it is best not to remove the pad at once, but keep it in its place with strips of adhesive plaister. If the simple lint does not answer, try a pad soaked in a strong solution of Alum, and if this fails, apply a pointed piece of Lunar Caustic to the bite. As a last resource, take a sewing needle, pass it through the wound from side to side, and then twist cotton or thread tightly round it in the letter S form, as represented above.

It has sometimes been found needful to apply actual canterbury—a wire or skewer heated to a white heat. These are desperate expedients, but it is better to resort to them than let a child or weakly person

these we give a cut ; it may be had of Mr. Potter, of Farringdon-street, London, whose stock of Leeches is the largest in London, and from whom every information as to quality, price, and mode of preserving these useful animals may be obtained.



Leeches which become inert, and assume a knotted appearance, should at once be removed, or they will affect the whole stock. According to Dr. Christison, Leeches that have been used may be rendered as fresh and active as ever, if a little White Sugar is dissolved in the water into which they are put for the first two or three days. Another plan which he recommends is to put the Leeches into a vessel, with half an inch of sand at the bottom, containing water, with two tea-spoonsful per quart of French White Wine, and to change the liquid daily till the fourth day, when pure water is to be substituted.

This authority further tells us that "The gorging of Leeches is a more common fraud than the substitution of spurious species. They are known by being less velvety in their coat, less flat when pressed, and by presenting a little tumour when squeezed between the fingers from the head to the tail. Leeches that have been used are often sold for unused, or 'virgin' Leeches. These are best known by putting them on a white cloth and dusting their fore-part with finely-powdered salt. If they have been used before, in thirty seconds a little blood will be emitted, but not a particle if the Leech be quite fresh."

To know which are the healthiest and most vigorous Leeches, take a number in the hand, and gently close it upon them ; select those which contract themselves into a tolerably firm ball, and reject those which are flabby and flaccid.

It has sometimes happened that a Leech applied to the inside of the mouth or nostrils,

has crawled out of reach, and got into the stomach, in such a case, a strong Solution of Salt should be swallowed, or injected into the bowels, to kill the animal.

Several artificial substitutes for Leeches have been invented, but none, we believe, which have fully answered the purpose ; one that did so would be extremely valuable, especially to emigrants. The most recent, and perhaps efficient, invention of the kind is Kidston's artificial Leech, which is well worthy of attention.

**LEEK.** As an article of diet, this is too heating and stimulating for most persons, and is likely to disagree with those of weak digestion : if taken at all, Leeks should be blanched like celery, and stewed ; the fresh juice is said to be powerfully diuretic, and has been recommended for dissolving calculi formed of earthy phosphates. The vapour of boiling water poured over these plants, is popularly considered a remedy for piles ; the mode of application is to cut up the Leeks, put them in a bed-pan or chamber utensil, pour on the hot water, and let the patient sit upon the vessel for a time. See *Allium*.

**LEG.** This term is very commonly applied to the whole of the lower limb, from the hip to the ankle, but properly it belongs to that portion only which lies between the knee and the ankle ; it is formed of two bones, the *tibia*, and the *fibula*, the upper broad portion of the former only forming part of the knee joint, but the lower ends of both being required in the formation of the ankle-joint. The following cut represents a front view of the bones of the right leg :— 1 is the shaft of the tibia ; 2 and 3 its inner and outer tuberosity ; 4, spinous process ; 5, tubercle ; 6, internal and sub-cutaneous surface of the shaft ; 7, lower extremity ; 8, internal malleolus ; 9, shaft of the fibula ; 10 and 11, its upper and lower extremities ; the latter shewing the extension called the internal malleolus, similar to that of the opposite tibia, the sharp border between 1 and 6 being the crest of the latter bone. Fractures of these bones together or separately are of not unfrequent occurrence (see *Fractures*) ; and dislocations may take place at either extremity (see *Dislocations*). We have, however, here spoken only of the bony structure or skeleton of the Leg, which requires filling up with the muscular and other tissues, which go to make it one of the most shapely and useful limbs of the human body. In the next cut, like the last, from Wilson, will be seen the peculiar arrangement of the muscles by which its various movements are effected.



In this, which is the anterior aspect of the limb, we see the beautiful developement of the calf, and arrangement of the superficial



muscles, which only can be here exhibited:—1 is termed by anatomists the *quadriceps extensor* which is inserted into the patella or knee cap; it rests on the tendon of the rectus, and has the *vastus internus* and *externus* on either side of it; 2 is the sub-cutaneous—that is underskin surface of the tibia; 3 is the muscle called *tibialis anticus*; 4 the *extensor longus digitorum*; 5, the *extensor proprius pollicis*, the latter of which is inserted into the base of the last phalange of the great toe; 6, 7, and 8, are the *peroneus tertius*, *longus*, and *brevis*, three muscles by which several important movements of the leg and foot are effected; 9 9 are the borders of the *soleus* muscle; 10, part of the inner swelling of the *gastrocnemius*, that thick muscular part of the leg commonly termed the calf; 11 the *extensor brevis digitorum*, the tendon in front of which is that of *peroneus tertius*, while that behind it pertains to the *peroneus brevis*. These are some of the principal superficial muscles; there are others which lie beneath them, and

some which occupy a front position in the Leg, to which we need not allude; the general structure and arrangement being sufficiently shown by the above diagrams and explanations for all the necessary purposes of our work. We have already mentioned dislocations and fractures as among the injuries to which the Leg is subject; its diseases are those common to most parts of the body (see *Foot*). One affection peculiar to the limb is what is termed White Leg—in scientific language *Phlegmatia dolens*, which attacks delicate women shortly after delivery; it commences with pains in the lower parts of the abdomen; this extends to the groin, and thence down the thighs, which gradually become tense and swollen, the skin assuming a smooth, shining appearance, with a tendency to pit on pressure; this soon extends down the legs.



The constitutional symptoms are, white-coated tongue, quick weak pulse, great thirst loss of appetite, and restlessness. Gradually the swelling of the limbs subsides, and there is a formation of matter in various parts,

with a copious discharge, which exhausts the strength of the patient.

*Treatment.* At first, Leeches applied to the groin, and the administration of Calomel and Opium, in small doses, say 1 grain of the first, and  $\frac{1}{2}$  a grain of the second, about every four hours, with a Saline draught; or, envelope the whole of the thigh and upper part of the leg in a warm Bran, or Linseed poultice, or a wrapper of carded wool or cotton, in the latter case previously rubbing in, gently, a little Spirit of Turpentine. The diet must be low at first, but when the febrile symptoms and swelling have subsided it may be generous. In the exhaustive stage of the disease, Quinine will be of service, and when it becomes chronic, carriage exercise, sunshine, air, and warm salt-water bathing, will generally prove efficacious.

**LEGUMINE** (Latin *legumin*, pulse). A kind of fecula, similar to starch, obtained from peas and beans, and other plants of the order *Leguminosæ*.

**LEIPOSYCHIA** (Greek *leipo*, to leave, and *psyke*, the soul). A term used by Hippocrates for syncope, which Galen called *Apop-sychia*; it is synonymous with the *Leipo-thymia* of Sauvages. See *Fainting*, *Syncope*.

**LEMNIAN EARTH** is sometimes alluded to by ancient writers, as an antidote to poison and the plague; it was a mineral found in the island of Lemnos, which from its being cut into pieces, and stamped with an impression, was also called *sphragide*, from the Greek *sphragos*, a seal.

**LEMON.** The fruit of the plant which botanists call *Citrus Communis*, as all know, is one of the greatest sick-room luxuries which we possess; it is cultivated chiefly in France, Spain, Italy, Sicily, and other parts of the south of Europe; if good, it will have a tolerably smooth and thin rind, a sharp refreshing taste, and a delicious aromatic odour. The acidity in the juice is owing to the presence of *Citric acid* (which see under the head of *Acids*); this is the most agreeable acid wherewith to make effervescing draughts (see *Beverages*); but it is expensive, and, therefore, not so commonly used as the Tartaric acid. Until recently, the chief medical use of Lemon-juice was in Scurvy, in which it is not only a curative medicine, but actually a preventive; those who undertake long sea voyages, should, therefore, not fail to provide themselves with this valuable anti-scorbutic; it may now be obtained at a moderate price of most confectioners and foreign fruit dealers, especially in large sea-port towns. The best way to

preserve it for keeping, is to add to it about one-tenth of Spirits of Wine; this coagulates the gummy matter, which would be likely to cause fermentation, and it should therefore be separated from the clear juice by straining. A little of it should be taken every day when away at sea, when fresh vegetables cannot be obtained, and salt provisions are much taken; lime-juice is often used as a substitute, because cheaper, but has not so good an effect.



Recently, Lemon juice has been employed as a remedy in gout and rheumatism with great success; the dose is  $\frac{1}{2}$  ounce every half hour on an empty stomach; besides being antiscorbutic and antiseptic, it is, in large doses like the above, tonic and diaphoretic. Lemon peel is also slightly tonic as well as aromatic and stomachic; it forms, with Orange peel, an ingredient in the Compound Infusion of Gentian; dried and grated, it imparts a pleasant taste to pastry, &c., as every housewife knows; for this purpose, however, and in the preparation of confectionery, the Essence of Lemon is commonly used; this, when not diluted with turpentine, as it too often is, forms one of the most agreeable of perfumes, and refreshing of flavours.

The "Salt of Lemons," commonly used for taking ink-stains, and iron-moulds out



of linen, is wrongly named; there is nothing of Lemon in its composition; its most active component is Oxalic Acid—a strong poison. (See *Acids*.)

*Lemon Whey* may be made by pouring very gradually into boiling Milk as much Lemon juice as will suffice to curdle it; when required for use, dilute with hot water, and sweeten with lump sugar.

*Lemonade* of excellent quality may be made thus:—Pare two tolerably sized Lemons as thin as possible; take half the rind of one, and pour on it a pint of hot water, and let it stand for about three hours: then squeeze into a large jug the juice of the peeled Lemons, with 2 ounces of Lump Sugar, pour on that a pint of hot water, and, when the sugar is dissolved, add the two liquids together; when cool it is fit for drinking.

To make *Concentrated Lemonade*, take 2 pounds of Loaf Sugar, break it up, and pour on it a pint of cold water; let it heat gradually, until it boils and is converted into syrup; add, while hot, 1 drachm of Essence of Lemon, and  $\frac{1}{2}$  ounce of Citric Acid; a tablespoonful of this, added to a tumbler of water, makes a very pleasant drink.

**LENICEPS.** An instrument lately invented for the extraction of the child in difficult labour; it differs from the ordinary forceps in being very short, and by the branches locking upon a transverse handle, so that it can be folded up in a small compass. One advantage of this invention is, that being of smaller size it does not frighten the mother, like the old fashioned instrument; and another, that it acts very gently on the child, hence its name *leniceps*, in contradistinction to *forceps*.

**LENIENTIA.** (Latin, *lenis*, to assuage). Medicines which have the effect of allaying irritation.

**LENITIVES** (Latin *lenio*, gentle). Purgatives which act in a gentle manner, and which, from being combined with warm stomachics, have a soothing effect; the most common example we can name of the class of aperients is the Lenitive Electuary, or, as we now call it, Confection of Senna. See *Confections*, also *Senna*.

**LENS** (Latin *lens*, *lentis*, a bean). Properly a small, roundish glass, shaped like a lentil or bean; the term in anatomy is applied to the crystalline humour of the *Eye* (which see).

*Short-sightedness* is occasioned by too great a convexity of the crystalline lens, causing a convergence of the rays of light at a point, before they fall upon the retina;

and, to correct this, a concave glass is required. *Long-sightedness* arises from too great a concavity of the lens, so that the rays do not converge to a point, before they have passed the retina; for this a convex glass is required. See *Sight*, *Spectacles*.

**LENTICULA**, or **LENTIGO**, so called from its fancied resemblance to lentil seeds, is another name for *Ephelium*, or the little yellow spots on the skin produced by the action of the sun. See *Freckles*.

**LENTICULAR.** A term applied to, 1, a ganglion of the head situated on the external sac of the optic nerve; 2, a variety of true *Cataract* (which see), and *Eye*.

The term is also applied to an instrument employed for removing the irregularities of bone from the edges of the perforation made on the cranium by the trephine, in the operation of *Trepanning* (which see).

**LENTIL.** This is one of the leguminous plants cultivated for food; its scientific name is *Ervum Lens*; it is eaten all over the south of Europe, in the East, and in Egypt. The flour of Lentils is considered very wholesome, and Dr. Playfair found



that it contained more nitrogenous matter than any other pea or bean meal, and consequently more nutriment. The Hindoos, it is said, always take Lentils, in addition to their rice, when engaged in laborious work. The substances sold under the name of *Revelenta* and *Ervulenta Arabica*, are composed wholly, or in great part, of this flour.

**LENTOR** (Latin *lentus*, clammy). The viscosity or clamminess of a fluid, especially of an exudation in the skin, is sometimes so

called. *Lentor of the Blood* is that viscosity of the vital fluid to which Boerhaave ascribed the existence of fever; it was his theory that whatever would change this supposed viscid state of the blood into a thinner, that is a more natural or healthy state, would destroy fever; hence the terms *attenuants*, *diluvants*, *humectants*, which we find so frequently in the works of all medical writers who believed in this theory, and sought to dissolve the tenacity of the blood by such means; medicines of an opposite character, too, which were meant to render the blood thicker, were called *inspissants*.

**LEONTIASIS.** A designation of the tubercular kind of *Elephantiasis* (which see).

**LEONTODON TARAXACUM** (Greek *leon*; a lion, and *odons*, a tooth). The common plant called Dandelion, *Dent de Leon*, or *Densleonis* (see *Taraxacum*). The botanical name of the March Dandelion is *Leontodon Pulustre*.

**LEPIDOSIS** (Greek *lepis*, a scale). An efflorescence of scales over different parts of the body, often thickening into crusts, sometimes called *Scale-skin*. This is, probably, identical with

**LEPRA or LEPROSY**, that ancient disease of which we read in Scripture, and which, if met with at all in this country, is in a very mitigated form. The Leprosy of the Greeks appears to have been a scaly disease of the skin, occurring generally in circular patches; three distinct species of it are mentioned:—*L. vulgaris*, *L. alphoidis*, and *L. nigricans*, Common, White, and Black Lepra. That of the Jews appears to have been characterized chiefly by whiteness of the hair, and depression of the skin, which was covered with white horny crusts or scales. The Greek writers term this *leuce*, the Arabian *baras*; with Celsus it was a species of *vitilego*, or, at all events, a bad form of Leprosy. That this disease was at one time prevalent in our own country, we may infer from the mention made of the existence of Leper Hospitals. We have traces of one founded by Bishop Gundulph yet remaining at Rochester, in Kent, and the sites of others can be pointed out. The disease, probably, first came to us from Palestine; but this does not much concern our present subject, which is the milder form of Leprosy which is presented to us for treatment in the present day in England.

This we find to be a scaly eruption of the skin, consisting of circular patches of various sizes, having depressed centres and raised edges; these patches first appear on the angles of the knees and elbows, and then gradually extend over all the other parts of

the body, except the face and hands. The several distinct blotches by which Lepra always extends rarely exceed a range in size from the circumference of a shilling to that of a halferown: sometimes these join at the margins, and so extend over a very considerable space. When the patches are smooth, white, and of long standing, it is called White or Dead Leprosy. When they are of a livid or coppery hue, it is the result of syphilis, and called Syphilitic Leprosy. Green says that "It is not a contagious disease, but there is no doubt of its being hereditary; it is one of frequent occurrence, though not generally formidable, and may exist in scattered patches for a long time. When the eruption is very copious, and when the whole or greater part of the body is encased, as it were, in a sort of scaly armour, the functions of the skin are interrupted in a degree incompatible with health, and the lungs and kidneys are then required to do a double office."

**Treatment.** If not a very formidable, there can be no doubt that this is a very obstinate disease: the only local applications which are at all serviceable are Alkaline and Sulphur Baths: a quarter of a pound of Carbonate of Soda, or the same of Sulphuret of Potash, put into a sufficient quantity of warm water for a bath, is about the right proportion. One of these should be used two or three times a week, or the skin sponged daily with a similar solution will do, changing from one to the other occasionally, and taking about once a week a tepid water bath. Some recommend a lotion composed as under, to be regularly applied every night with a soft brush or piece of sponge:—Chloride of Zinc, 12 grains; Glycerine, 1 ounce; Rose Water, 11 ounces. The constitutional treatment must depend very much upon the patient's general health, habit of body, &c.; if strong and plethoric, a course of saline purgatives, with an alterative, such as Plummer's Pill, 5 grains, every other night or so, and spare diet; if weakly and thin, a generous diet and tonics may be required; in either case Hydriodide of Potash, with Decoction of Sarsaparilla, 3 grains of the former, with 4 ounces of the latter, twice a day, will be serviceable. If the disease is obstinate, recourse may be had to Fowler's Solution of Arsenic, which should be taken in full doses, and regularly, until it produces redness of the eyes, when the dose must be gradually diminished. But this remedy should be only given under medical superintendence. The Harrogate Waters will be serviceable in Lepra if taken on the spot.



Dr. Kingslake states "that several cases which had resisted every other treatment have been cured by taking 10 drops of Sulphuric Acid three times a day in  $\frac{1}{2}$  a pint of water, and bathing the part with a solution of  $\frac{1}{2}$  a drachm of the acid in a pint of water.

**LESION** (Latin *lesio*, from *lædo* to hurt). This is a term used in pathology to signify any kind of wound or bodily injury.

**LETHARGY** (Greek *lethē*, forgetfulness, *argia*, inactivity). A state of lethargy is one of profound and continuous sleep; it is the slightest form of coma, and has been sometimes termed *cataphora*. This seizure or affection nearly approaches apoplexy in character, and, like this disease, may arise from an over fullness of blood; or from a deficiency of circulation in the brain, owing to nervous exhaustion; or to a diseased state of the organ. Other causes may bring on Lethargy, such as an impure or poisoned state of the circulating fluid, which precedes an attack of bilious or British cholera or diarrhoea, or is occasioned by suppression of the urine. Then, again, it may be a consequence of the action of narcotic drugs, or of alcoholic intoxication. The treatment will depend very much upon the cause, which should be carefully investigated by a medical man, otherwise the remedies given may rather tend to increase the evil. See *Apoplexy*, *Bile*, *Debility*, *Intoxication*, *Languor*, &c.

**LETTUCE**. This is a well-known edible plant which is very generally used, and agrees with most persons well, although with some persons, like all uncooked vegetables, it disorders the stomach. All the cultivated varieties have originated from *Lactuca Sativa*, a plant which has never yet been found in a wild state, it is therefore, considered to be but another form of some species altered by cultivation. There can be no doubt that Lettuce, generally, exercises a cooling and soothing effect upon the system, which is not owing so much to any narcotic power it possesses, as to the great quantity of mucilaginous fluid which it contains. The Wild Lettuce, *Lactuca Virum*, is found in many parts of Britain; it is very milky, has a strong disagreeable odour, like that of Opium, and a bitter acrid taste. It yields a bitter principle and a peculiar Acid Resin, Caoutchouc, Wax, Gum, Alkali, and Alkaline Salts; from both this and the Garden Lettuce, although more from this, is obtained a bitter crystalline substance called *Lacturin*, or *Lactuceric*, or *Lactucine*, soluble in Alcohol and boiling Water, scarcely so in cold

Water, and not at all in either without alkaline re-action: this is supposed to be the active principle to which attention was first called by Dr. Dunean, of Edinburgh, who recommended it as a substitute for Opium, the anodyne properties of which it is said to possess, without being followed by the same injurious effects; that it has the same anodyne properties as Opium, is doubted by many, or if so, it is in a much milder degree; it has never come into extensive use. In England we also find the Prickly Lettuce *L. Scariola*, which possesses the same properties as the above. Another species, *L. Taraxacifolia*, a native of Guiana, is much used by the Negroes as a salad plant, and also as an opiate. In France a water is distilled from Lettuce, which is taken as a mild sedative. The French people also use the fresh leaves of the plant, boiled in water, as a cataplasm.

**LEUCINE** (Greek *leukos*, white). A name applied by Braconnet to a peculiar white principle obtained from muscle. By Nitric Acid it is converted into a crystalline acid called *Nitro-leucic*.

**LEUCOMA** (Greek *leukos*). A term applied to a white opacity of the cornea, the slightest form of which is termed *nebula*, (haziness); and a small patch or speck, *macula*; the affection is popularly known as "Film," scientifically as *Albugo* (which see, and *Eye*). From the same root as the above we have also the term *Lecue*, a name for *Leprosy* (which see).

**LEUCOPATHIA**. The Albino state; a deviation from the natural colour which was first observed in Africa—the individuals affected with it being termed *Leuc-æthiops*, or White Negroes; this phenomena is owing to the absence of the pigmentary deposit under the skin which imparts its colour. In consequence of the inability to bear strong light manifested by the Albinos, the Dutch called those whom they met with in Java, *kukker-bakkers*, or cockroaches, which run about only in the dark. There is also another term from this Greek root, viz. *Leucophlegmatia*, which was formerly applied to a dropsical habit.

**LEUCORRHOEA** (Greek *leukos*, and *rheo* to flow). Literally a white discharge, and applied to that from the vagina, its source being either that organ itself, or the uterus. This affection is popularly known as "the Whites;" it has also been variously termed *fluor albus*, *fluor muliebris*, and *les fleurs blanches*, the latter being the French name. "Of all the diseases peculiar to females," says Dr. Ashwell, "there is none so com-

mon. Few married women, particularly if they are mothers, escape its attacks; very generally this troublesome discharge is associated with general debility, especially if it has continued profuse for any length of time; hence it is very desirable that attention should be paid to it at the commencement; for if neglected, it may seriously impair the constitution, and grow from a comparatively mild affection into an inveterate and dangerous disease."

The causes of this discharge are over exertion of the uterine organs, irritation of the rectum from loaded and constipated bowels; it may also be brought on by diarrhœa, piles, worms, irritation of the bladder, or of the nervous system; weakness too is a cause of *Fluor albus*, as well as a consequence of its long continuance; confinement in a warm atmosphere, luxurious living, and chlorosis must likewise be numbered among its exciting causes.

We can generally distinguish this disease from gonorrhœa, by the absence of local irritation and swelling of the external parts, and the glands of the groin; also by the discharge being less regular and copious.

In Leucorrhœa, this is commonly at first white and pellucid; or it may be opaque and thick, coming away now and then in lumps; after awhile the colour will perhaps change to green, yellow, or brown, and sometimes it will become very acrid, causing abrasion and smarting on passing the urine: in this stage it is apt, especially during pregnancy, to cause a gleet discharge from the urethra, of one having sexual intercourse with the patient. Ere long, if the disease is not checked, we get great local irritation, and constitutional disturbances; there will probably be costive bowels, pains in the loins, and back, great lassitude, with nervous and hysterical affections. Menstruation, too, will be irregular, at one time being altogether suspended, and at another too abundant.

*Treatment.* If the patient is of full habit, it will be advisable, in the first stage of the disease, to abstract some blood by cupping, or leeches on the lower part of the back. Saline aperients should be taken, a spare diet observed; local ablutions practised three or four times a day, using occasionally a Decoction of Poppies for the purpose; the hip bath, and an injection of Goulard Water, with a scruple of Powdered Opium in each pint, will also be found serviceable.

The recumbent position should be preserved, as much as possible, and the parts kept cool; the practice of wrapping them

up in napkins is objectionable, as it heats and weakens them.

Local treatment will be of little avail in cases of long standing, unless the general health be attended to. To keep the bowels gently open, take Compound Rhubarb Pill, 5 grains, as often as required, and to strengthen and cool the system, a mixture like the following:—Sulphate of Iron, 12 grains; Diluted Sulphuric Acid, 1 drachm; Sulphate of Magnesia, 4 drachms; Peppermint, or Cinnamon Water, 12 ounces: take two table-spoonsful twice or thrice a day. In obstinate cases, there should be an injection into the vagina of a solution of Alum and Sulphate of Zinc, 3 drachms of the former, and 1 drachm of the latter, to a pint of Water; 3 or 4 ounces to be thrown up, while the patient lies with the hips rather elevated; this position to be retained for some time, with the parts covered by a napkin or sponge, so that the fluid may be kept in. If there is itching and irritation of the parts, it may be allayed by an injection composed of Carbonate of Soda, 2 drachms, in a quart of Bran tea or Poppy decoction. If the simple Alum and Zinc injection proves ineffectual, add a drachm of Powdered Catechu to each pint, or use decoction of Oak Bark as a vehicle for the above salts. When there is much debility, with suppressed or scanty menstruation, preparations of Iron as the above mixture, with Compound Steel Pills, or some compound of Canada Balsam, 3 grains, and  $\frac{1}{2}$  a grain of Quinine, or the latter substance  $\frac{1}{2}$  a drachm, with dilute Sulphuric Acid, 1 drachm, in 6 ounces of Gentian or Cascarilla; a table-spoonful to be taken twice or thrice a day. Should there be profuse menstruation, nothing is so likely to be effectual as the Iron and Acid Mixture, with or without the Sulphate of Magnesia, according to the state of the bowels. Mustard poultices to the lower part of the back, or stimulant liniments, rubbed well in every night, for a time, will often prove useful; and when there is pain in the back, or headache arising from the stoppage of a copious discharge, it may be relieved by dry cupping on the loins, or three or four leeches, or small blisters.

Women, who are likely to have Leucorrhœa, should avoid all predisposing causes of the disease; such are wines and other stimulants, and hot tea or other slops, taken in large quantities: luxurious living and sensual indulgences of all kinds, especially much sexual intercourse, and anything which has a tendency to enervate and enfeeble the frame. Early rising and regular open air exercise; warm and comfortable



clothing; good food and tonic medicines, with the use of the shower bath and sea-bathing; these will prove the best preventives.

**LEVATOR** (Latin *levo*, to lift up). A muscle which raises any part; its antagonist is called a *Depressor*.

**LEVIGATION** (Latin *levigo*, to polish, from *levis*, smooth). A process employed for reducing earths and metallic substances to a smooth and even state: it is performed with a muller on a slab of stone or marble, and the use of a fluid in the process makes it differ from *tituration*.

**LEY**. A term used for a solution of alkali in water, sometimes called *Lixivium*.

**LEYDEN JAR**, or **PHIAL**, so called from its effects having been first exhibited in the city of Leyden. This is a cylindrical glass vessel, coated up to a certain height inside and out with tin-foil, or some conducting substance, so that every point of both sides of the glass may be brought into communication at the same moment: a combination of such jars or phials constitutes one form of the electrical battery. (See *Electricity*).

We give here a cut of a single jar. It may be described as a mere plate of glass in the jar form, for the convenience of handling; an electrical excitement is produced on one side, and this operates on the chemical elements within the substance of the glass, just as though it were a plate of air, or a plate of fluid in a galvanic combination; and the opposite side has a similarly opposite excitement, as acid and alkaline, called positive and negative; and the excitement continued by a metal surface, from



side to side, produces, when within a small distance, an explosive restoration of the two disturbed sides, considered either as acid and alkaline, oxygen and hydrogen, or supporter and combustible.

A vacuum produced in a phial of this sort has been called the *Leyden vacuum*.

**LEXIPHARMICS** (Greek *lexo*, to prevent, and *pharmakon*, poison). Medicines which resist or destroy the power of *Poisons* (which see).

**LICHEN** (in Greek *leichen*). In medical science this term stands for a papillar, cutaneous eruption, sometime called a Lichenous rash. It is attended with a sense of tingling and a prickly heat, like that caused by the stinging of nettles. Hence we have the name

commonly applied to one of its forms, of *Nettle Rash* (which see). Scientifically, this Rash is called *L. urticus*; another variety is the Prickly Heat of the Tropics (*L. tropicus*). (See *Heat*.) Other varieties are the Simple, Hair, Clustered, and Livid Lichens (*L. simplex*, *polaris*, *circumscriptus*, and *lividus*). There is also a kind described by M. Bielt under the name of Spiral Lichen (*L. spiralis*), and what is sometimes called Agaric Lichen (*L. agaricus*); as well as the Tooth Rash, or Red or White Gum, to which infants are liable. This is the *L. stropulatus* of writers on *Skin Diseases* (which see).

**LICHEN**, in Botany, is the name of an extensive division of cryptogamous plants, constituting a genus in the order *Algæ* in the Linnæan system, but now forming a distinct natural order called *Lichenaceæ*. The general mode of growth of these plants is that of a thin, flat crust, spread over rocks and the bark of trees. Sometimes they spring from the ground, and shoot out tiny branches like miniature shrubs; and sometimes they appear as a mere gelatinous mass, or a fine powdery substance. Among them are included the Iceland and Reindeer Mosses, which, however, are quite distinct from the true Mosses. Lichens abound chiefly in the cold and temperate parts of the world. Their chief use appears to be the preparation of the surface of the earth for the growth of large vegetables; but some kinds, as those above named, are of direct essential service to man, possessing tonic and strengthening properties (see *Cetraria*, *Iceland Moss*, or *Liverwort*.) They are also useful in the arts, furnishing the dyer with many brilliant colours. An acid peculiar to some varieties has been extracted, and termed *Lichenic Acid*; it appears to be identical in its character with *Malic Acid* (which see). A peculiar vegetable starch, called *Lichenin*, is obtained from the *Liverwort* (which see); it is said to possess the alkaline property of combining with acids.

**LIENTERIA** (Greek *leios*, smooth, and *entera*, the intestines). A species of diarrhoea, in which the food comes away only partially digested; it is sometimes called *Lientary*, or *Lævitus intestinorum*; (see *Diarrhæa*).

**LIFE** (Latin *vita*). The principle which distinguishes the organised from the unorganised kingdom, and for which human philosophy is unable to account. Animal life (for with vegetable we have here nothing to do) has been described as "Not merely the holding together of several unconnected living structures, but the harmonious co-

operation of all the structures and organs to maintain each other, and the whole body, in efficient action. All these depend upon the circulation of the blood, and when it permanently ceases, death ensues. Where the vital power primarily resides, it would be fruitless to inquire; but the blood in the living body is evidently alive, and anything found in it is immediately subjected to other than the mechanical, chemical, electric, &c., powers of external nature (as far, it may be added, as we have yet been able to investigate and comprehend them), and is in fact within the realm of animal vital force." What this *vis vitæ*, as the old philosophers called it, may be, we cannot tell, and it would be useless to indulge in idle speculations as to its exact nature, and principal seat in the human system; sufficient is it for us to know that it comes to us from the great universal source of all Life, and that it is an eternal principle, a spark that, once lighted, will never be quenched; an inestimable gift, which we ought to value, and cherish, and improve, for the transient and troubled life which now is, we have unquestionable authority for saying, is but a preparation for the everlasting life of rest and happiness which is to come. It is, however, with the Life of the frail, perishing body, rather than with that of the immortal soul, that we have to do at present, and it behoves us to place before our readers a few considerations as to how this may best be preserved and prolonged. This is the object of the whole science of medicine and surgery; this the great aim of all sanitary measures and precautions; pity it is that people generally are not more alive to the importance of the subject. Boards of Health and Sanitary Commissions will, and must be, comparatively ineffective, while there is an absence of a great popular and individual sense of the paramount importance of hygienic efforts. There must be cleanliness among the masses; temperance; careful selection and preparation of food; good ventilation; proper nursing in sickness; and, especially, attention to the aliments, and the growth and development of the frame in childhood; before human life will reach anything like its maximum point of duration. The chances of disease and death are all reduced in proportion to the awakened sense of responsibility in these matters, tending to individual and general effort in the way of sanitary precautions. Improvements in medicine and surgery may do much, but absolutely nothing in comparison with what may be effected in this way. It is here that we must look for the lowering

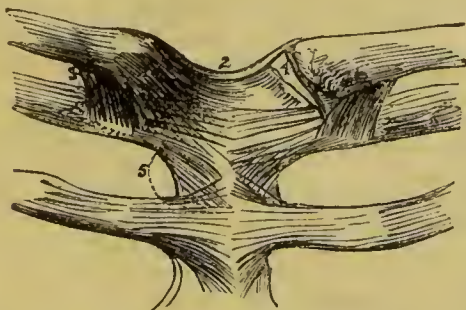
of our rates of mortality. The reiterated and undisputed fact, that fever carries off yearly, in Britain, a larger number of victims than fell in the allied armies at Waterloo, and that one-third of the children die before they reach the age of five years, coupled with the knowledge that a very large proportion of these deaths occur from preventible causes, should surely convince us that human life must be held very cheaply in this country, or that there must exist a lamentable state of ignorance as to the means by which it may be preserved. What these necessary means and precautions are we trust are explained with sufficient clearness and fulness under the various heads of *Air, Light, Clothing, Food, Drainage, Ventilation &c.*, to render it unnecessary for us to dilate more upon the subject here.

**LIFE ASSURANCE.** This is a subject so intimately connected with the issues of life and death, that we must necessarily say a few words upon it here. To every father of a family, or young men in expectation of becoming such, we would say—insure your life! To every mother now or in likelihood, persuade your lover or husband to do this; indeed it would be a good plan for all spinsters to refuse the hand of a man, unless he could show an insurance policy as a proof of his prudence and forethought. How often has the death bed of a husband and father been cheered and comforted by the reflection that he had made this provision—perhaps the only one he could make, against leaving those most near and dear to him in a state of destitution; how often has the hour of death been embittered, and even hastened, by the terrible thought that he is the only shield between those loved ones, and want and penury. If, as we well know, anxiety of mind has a depressing effect upon the body of one smitten with disease, and renders him less likely to recover, is not that a sufficiently strong argument in favour of Life Insurance? It is in the power of very few, comparatively, to accumulate property for the benefit of their wives and families, but all, or nearly all, may put by a periodical sum from their professional or other income, something for their survivors, and, in this way, too, a provision may be made for their own old age, or for a time of sickness. The facilities for effecting Insurance now so great, and the sums taken so small, that none should hesitate to avail themselves of one, or other, of the opportunities offered to the public for that purpose.

**LIGAMENT** (Latin *ligo*, to bend). A ligament is a membrane of a flexible, but compact texture, which connects the arti-



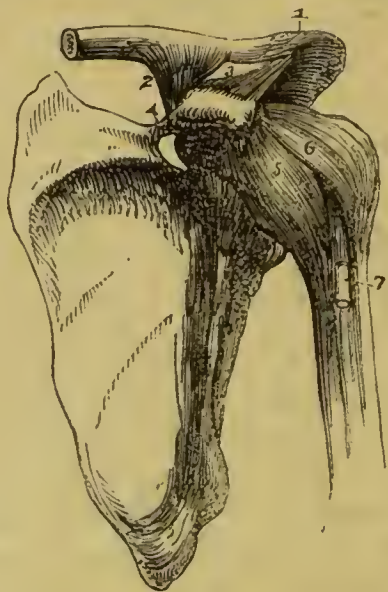
cular surfaces of bones and cartilages, and sometimes protects the joints of a capsular envelope; thus Ligaments form the tendons and sheathes of muscles, and the strong elastic tissue of which the outer coats of arteries consist; the yellow fibrous tissue which answer the latter purpose is extremely elastic; but that which connects joints, and which, under the dissecting knife, shows itself in white glistening bands, is far less so, or dislocations would be of constant occurrence. The Ligaments of the human body, of course, are very numerous; and it is not necessary for us to give a list of them. The following cut, from Wilson, exhibits those of the *sterno-clavicular* and those of the *costo sternal* articulations, that is, those which bind the collar bone and the upper ribs to the breast bone.



1, is the anterior *sterno-clavicular*; 2, the *inter-clavicular*; 3, the *costo-clavicular*, sometimes called the rhomboid Ligament, seen on both sides; 4, the *inter-articular* fibro-cartilage, brought into view by the removal of the anterior and posterior Ligaments, whose position is marked by the dotted lines; 5, is the anterior *costo-sternal* Ligaments of the first and second ribs. The next figure exhibits an example of the Ligaments connecting and enveloping the bone at the shoulder joint. 1 is the superior *acromio-clavicular*; 2, the *coraco-clavicular*; 3, the *coraco-acromial*; 4 and 5, the transverse and capsular Ligaments; 6, the *coraco-humeral*; and 7, the long tendons of the biceps, issuing from the capsular Ligament, and entering the bicipital groove. (See *Humerus*.)

In this cut, we have a good example of the ball-and-socket joint, and of the capsular Ligament which encloses the articulating heads of the scapula and humerus, and is attached to the neck of each bone. it is thick above, where resistance is most required, and strengthened by firm muscles; below it is thin and loose, to allow of free play in the joint.

Commonly, the Ligaments are by no means sensitive, but they become extremely so when over-stretched by a strain on the



joint. (See *Sprain*.) Under such circumstances, they are liable to inflammation, as they are in gouty and rheumatic affections. Anatomists have classified Ligaments—1st, according to their form; 2nd situation, or direction; and 3rd, according to a variety of circumstances: thus the Ligaments of the knee are *alar*, or winged; those of the corpus, *annular*, or ring-like; those of the aeromion, *radiated*, or star-like; and so on: then, in the second division, we find the *inter-osseous* occurring between bones; *inter-spinous*, between the spinal processes; *inter-articular*, between the articulations, &c.: then we have the lateral, perpendicular, and podical Ligaments; the accessory, the mucous, and many others, which we need not name.

**LIGATURE** (from the Latin *ligo*.) This is anything tied round an artery, or wart, to stop bleeding, or to remove the excrescence; it is commonly of silk or cotton, and should be strong and fine, and well waxed. Metallie Ligatures of fine wire of silver, or other ductile metal, have been recently much employed in surgical and other operations, and found very superior to any vegetable fibre, however tightly twisted.

**LIGHT** (in Latin *lux*, or *lucis*). That great agent by which our organs of vision are enabled to see, and take cognizance of, the beauties and wonders of creation. Into the various theories by which philosophers attempt to account for the presence and ex-

plain the phenomenon of Light, it is not our purpose to enter; we have to deal with it here, only as to its stimulating and other effects upon animal life and development, with especial regard to the humane system. Dr. Edwards, who has devoted much time and talent to an investigation of the influence of Light, remarks that persons who have abodes into which this cannot enter are apt to produce deformed children; and the illustrious Humboldt has attributed the absence of deformity among the Caribs, Mexicans, and Peruvians to constant exposure of the body to strong Light. It has also been stated on good authority, that in an extensive barracks at St. Petersburg the diseases on the dark side were in the ratio of three to one, as compared with those on the side which had most sun. Hence it has become a received fact in sanitary science, that plenty of Light is almost, if not quite, as necessary to health as an abundant supply of fresh air and pure water. Let us say, then, in the words of the Great Creator of this luminous principle, whatever it may be, "Let there be Light;" especially in the dwellings of the poor and lowly, and in the chambers of the sick, to cheer the spirits and invigorate the frame. Let there be sunshine, both moral and material, in all the dark places of the earth.

The stimulating action of Light upon living animal tissues, is best exhibited by that excessively-sensitive organ, the eye. A strong glare causes it to shrink, and become suffused with moisture, while the curtain of the lid is let fall to protect it from the continual annoyance. In arctic regions, where the reflected Light from the snow keeps the eye in a constant state of irritation, travellers suffer from inflammation of the organ, and the natives are sometimes affected with what is called snow-blindness, resulting from the like causes. That Light is capable of acting on muscular fibre, independent of the influence of the nerves, was mentioned by several of the old anatomists, but repudiated by later authorities. M. Brown Sequard has, however, proved to the Royal Society that some portions of muscular fibre—the iris of the eye, for example—are affected by Light, independently of any reflex action of the nerves, thereby confirming former experience. The effect is produced by the illuminating rays only; the chemical and heat rays remaining neutral. And not the least remarkable feature is, that the iris of an eel showed itself susceptible of the excitement, *sixteen days after the eyes were removed from the creature's head*. There can be no doubt, then,

that Light exerts a great influence upon the whole human system. It is a powerful nervous stimulant, and our physical organisation is largely indebted to it, as well as to heat, for the proper development of those powers and proportions, which go to constitute a vigorous and healthful existence. Under the heads of *Optics* and *Sight*, we shall speak more fully of Light as it affects the organs of vision; and then, too, we shall have something to say about *Artificial light*.

**LIGHTNING.** Death by means of this agent of almighty power is not of unfrequent occurrence, and serious injury, short of death, sometimes results from it. The mischief in either case seems attributable to the shock received by the nervous system in the passage of the electric fluid through some parts of the body; sometimes, but not often, it is the result of a severe burning from the clothes being set on fire.

When a person is "struck by Lightning," as it is called, he will probably be killed at once, in which case there will be unmistakable signs of death; or only stunned, and then he will remain in a state of insensibility for a longer or shorter period, according to the shock which his system has received, or has strength to endure it. There will be, probably, slow and deep breathing, with a relaxed state of the muscular system, so that the limbs may be moved about any how, and will remain as they are placed. The state is, indeed, one of asphyxia, and should be treated like *Drowning* (which see). Artificial respiration should, if possible, be induced by the same means as those recommended under that head, and the animal warmth preserved by hot applications, friction, &c.; Mustard Plasters to the spine and pit of the stomach, and a warm clyster, containing  $\frac{1}{2}$  an ounce of Turpentine, with, as soon as the patient can swallow, a little warm Brandy and Water or Sal Volatile, in 20-minim doses, every quarter of an hour or so. It is a popular notion that the bodies of persons killed by Lightning do not become rigid, and that their blood remains in a fluid state; this is quite contrary to fact.

The proper course to be adopted in the event of being overtaken by a thunderstorm, is to keep at some distance from trees, or tall buildings of any kind. Do not put up an umbrella, for the metal in it will attract the Lightning, and a good soaking is a protection from the Lightning; for this reason, anything metallic about the person should be got rid of or covered. If it be in a wide, open plain, where the body is the highest object, crouch as close to the ground as possible. In a room, do not stand be-



tween the fireplace and window or doors, for the course of the electric fluid appears to be much influenced by the current of air.

**LIGNIN.** Is the name sometimes applied to the fibrous structure of plants which, when heated in closed vessels, yields *Pyroligneous Acid*, and a peculiar spirit called *Pyroxicillie Spirit*.

**LIGNUM** (Latin for wood). The fibrous structure of vegetable substances, usually called woody fibre. Those used as medicines will be found in old Pharmacopœias; not as we now see them, as *cortex*, bark, *radix*, root, and so on, but as *Lignum*; thus it was *L. aloes*; *L. brazilense* (Brazil wood); *L. campechianum* (Campeachy, or Logwood); *L. colubrinum* (Snakewood); *L. nephriticum* (a bitter tasted wood, imported chiefly from Mexico, and supposed to be a sovereign remedy in *nephritis*, or inflammation of the kidneys); *L. pavana* (the wood of the *Croton Tiglii*, from the seeds of which Croton Oil is obtained); *L. rhodium* (Jamaica Rosewood, used in cephalic fumigations, &c.); *L. santali rubri* (Red Sanders wood); *L. serpentinum* (the wood of the *Ophioxylon serpentinum*, used as an antidote to the bites of serpents); *L. vitæ* (the wood of the *Guaiaecum Officinale*, remarkable for the direction of its fibres, each layer of which is crossed diagonally); this is sometimes called *L. benedictum*, *L. indiana*, and *L. sanctum*. St. Benedict's, Indian, and Holy-wood, were other names for this. See *Guaiaecum*.

**LIMATURA** (Latin *lima*, a file). Filings. Hence we have *L. ferri*, Iron Filings; *L. stanni*, Tin Filings; both used medicinally. See *Iron*, *Tin*.

**LIMAX** (Latin for slime). A name applied to the snail (*Cochlear terrestris*) on account of its sliminess. See *Snail*.

**LIME.** The oxide of calcium, an alkaline earth, found as a carbonate in marble, chalk, and limestone; when burned, so as to expel the carbonic acid, these substances become Lime (in Latin *calcis*, or *calx*), several forms and preparations of which are used medicinally. By themselves, neither quick nor slaked Lime are thus employed; with the former is made Lime Water (*Liquor Calcis*), which is given internally as an astringent, anti-acid, and alterative in diarrhœa, vomiting, heart-burn, and other irritations of the stomach and bowels, resulting from acidity. Acting as a solvent upon the mucus, it is occasionally given to dislodge worms; and it will sometimes, when added to a milk diet, enable a weak stomach to tolerate that which it would not otherwise be able so to do. A little Milk mixed with it

renders it less acrid and unpalatable than it naturally is. Lime Water may be easily prepared for family use, thus:—Take of unslaked Lime about  $\frac{1}{2}$  a pound; fresh Rain or Distilled Water, 12 pints; first slake the Lime with a little of the Water; mix it up well, adding gradually the rest of the Water; then put the whole into a well-stopped bottle; when wanted for use, pour off the clear liquor. Equal quantities of this and Salad Oil make an excellent application for Burns (which see).

**Carbonate of Lime** (*Calcis Carbonas*) is used in the form of Prepared Chalk, Prepared Oyster Shells, and Crabs' Claws, as an anti-acid and astringent, for diarrhœa, heartburn, and acidity of the stomach: we have it also held in solution by an excess of Carbonic Acid in *Carrara Water* (which see).

**Chloride of Lime** (*Calx Chlorinata*) is extensively used in solution as a disinfectant; it is also sometimes administered in putrescent fevers, as a stimulant and antiputrescent; largely diluted, it is applied to foul, indolent ulcers, and to some forms of cutaneous diseases: it also makes a good gargle in putrid sore throat, and a mouth-wash where there is fetid breath from decayed teeth or ulcerated mouth, and a local bath in hepatitis. This is the common Bleaching Salt of which the Bleaching Liquid is made.

**Muriate of Lime** (*Calcis Murias*), or, as it is now more generally called, Chloride of Calcium (*Calcis Chloridum*), is regarded as deobstruent, alterative and tonic. It is chiefly used in scrofulous diseases, bronchocœle, &c.; and is given in the form of the *Liquor Calcis Chloridi*, dose from 20 to 60 minims, in milk or other demulcent liquid: in over doses it acts as an irritant poison, and therefore must be administered with care. In scrofulous and white swellings it may be mixed with the poultices.

**Phosphate of Lime** (*Calcis Phosphas*). This was formerly much used in medicine, under the name of Barat Hartshorn; it formed a principal ingredient in Sydenham's *Decoctum Albinum*, afterwards known as *Mistura Cornuusti*. The precipitated Phosphate (*Calcis Phosphas Precipitatum*) is not a favourite form of administration. It is strongly recommended by some in rickets, scrofula, diarrhœa, ulcerations, excoriations of the skin and bowels, and general waste of the tissues of children; it also promotes the cicatrization of ulcers and the union of fractures; but in the latter case should not be given too freely, lest the callus be too abundant, so as to cause per-

manent deformity of the limb: the dose for adults is from 4 to 6 grains; for children, 2 or 3 grains, three times a day.

*Sulphuret of Lime* (*Calcis Sulphuretum*) is sometimes prescribed in skin diseases, gout, and chronic rheumatism; it is alterative, stimulant, and diaphoretic, and, in doses of 20 grains, is given as an antidote to metallic poisons; the common dose is from 4 to 8 grains. It is chiefly used, however, in the composition of Sulphur Baths, being, for this purpose, more economical than Sulphuret of Potassium. To prepare a bath, 2 or 3 ounces are dissolved in the water, and from 20 to 40 drops of Sulphuric Acid added. Although Lime exists in all plants, yet it is more especially the characteristic element of animal structures, into which it is introduced by the food eaten, as well as by the water drunk: if there is a deficiency of Lime in the nutriment taken by the young, a softness of the bones will be the consequence, while an excess of it will cause preternatural induration and brittleness, as well as morbid growths and calcareous deposits in the other tissues of the body, especially in the urinary passages. The general action of Lime upon the human system varies according to the form in which it is exhibited: thus Quick Lime is escharotic, causing inflammation, and often decomposition, of the part which it touches: when slaked, and in a state of great dilution, as in Lime-water, we find that it scarcely has any immediate or direct action; it merely combines with and neutralizes the acids of the stomach, and if in considerable quantities, absorbs the mucous and other secretions, checking also those of the organs with which it is brought into contact. After it has been absorbed into the system, it appears to augment the secretions of the kidneys, and to keep down the excess of uric acid. Altogether, it is one of the medical man's most valuable adjuncts.

**LIME.** The plant known to botanists as the *Citrus Limetta*, which closely resembles the Lemon tree, bearing small white blossoms, with pale yellow fruit, of a roundish, oval shape, and a protuberance like a nipple at the top, is that from which we appear to obtain the greatest quantity of the lime juice, extensively used, as an antiscorbutic. We give a cut of this plant, the juice of which, like that of the lemon and other species of the orange family, owes its acidity to the presence of *Citric Acid* (which see): it is not so efficacious as the Lemon juice; but, being much cheaper, is more used. There are many species of

Limes, but they do not differ essentially in their properties.



**LIXETUS** (Latin *lingo*, to lick). A term applied to soft substances, of about the consistency of syrup, which are taken by being licked off a spoon. We do not find the term in modern Pharmacopœias, confection being substituted for it; but in domestic treatment it is sometimes still used. We need not give any recipe for a Lixetus, as those given under the head of *Confections* are sufficient for all purposes.

**LINEA** (Latin for a line); hence we have *L. alba*, a white line formed by the meeting of the tendons or the abdominal muscles; *L. semicirculares*, a semicircular line formed by the abrupt termination of the abdominal muscles; *L. transversales*, transverse tendinous lines passing from the first to the second of the above lines; *L. innominata* (an unnamed line); this is an elevated Line forming part of the brim of the pelvis.

**LINIMENTS** (Latin *lino*, to besmear). An external application having the consistence of an oil or balsam, sometimes called an Embrocation. This is a common form of external application, and, in most cases, is of a saponaceous or an oily nature. Very many forms of this kind might be cited from the "*Materia Medica*" of both ancient and modern times; but it will be sufficient to name those which are given in the latest editions of the London, Edinburgh, and Dublin Pharmacopœias; these are:—1,



*Linamentum Aruginis*, made of Verdigris, Vinegar, and Honey, and used as an escharotic; it is spoken of in old books under the name of *Mel Egyptiacum* (Egyptian Honey); *L. Ammoniac*, *L. Ammoniac Compositum*, and *L. Ammoniac Sesquicarbonatus*, which are all stimulating; the second has been prescribed under the name of Antidynous Lotion; *L. Caleis*, which is Linseed Oil and Lime Water, equal parts; recommended for burns, and sometimes called Carron Oil, from being used at the Carron Iron Works; *L. Camphoræ* and *Camphoræ Compositum*, both stimulating, the latter most so, containing a proportion of strong solution of Ammonia and Rectified Spirit, with Oil of Lavender; the former is simply Olive Oil and Camphor, in the proportion of 1 ounce of the first to 4 ounces of the last. *L. Cantharides*, made by digesting 3 ounces of Powdered Spanish Flies in 12 ounces of Olive Oil in a steam, or water bath for three hours, and straining the product; this is not much used, although its action as a rubefacient is, no doubt, good in some cases. *L. Crotonis*, composed of Croton Oil 1 ounce, to 7 ounces of Turpentine; not a good form of application; when Croton Oil has to be applied it had better be used with Olive Oil. *L. Hydrargyri*, composed of Mercury, Lead, Camphor, Spirit, and Solution of Ammonia, 1 ounce of each of the first three ingredients, 1 drachm of the fourth, to rub down the Camphor with; and 4 ounces of the last; a good stimulating application to indolent ulcers and tumours. *L. Opii*, made of Opium,  $1\frac{1}{2}$  ounces; Castile Soap, 6 ounces, Camphor, 3 ounces; Oil of Rosemary, 6 drachms; and Rectified Spirit, 2 pints; or, simply Tincture of Rosemary and Soap Liniment, equal parts; a good embrocation for rheumatic pains and neuralgia: *L. Saponis*, much the same composition as the above, without the Opium: this is one of the commonest and most useful of liniments: it is generally known as Opodeldoc. *L. Simplex*, this is Olive Oil 4 parts, to 1 part of White Wax; may be used where friction only is required. *L. Terebinthinæ*, made with Soft Soap, Camphor, and Oil of Turpentine, 2 ounces of the first, 1 of the second, and 16 ounces of the last, a very stimulating application. Dr. Graves recommended as a rubefacient in bronchitis, a liniment composed of Nitro-Muriatic Acid, 1 drachm, rubbed down with 1 ounce of Lard, and 2 drachms of Oil of Turpentine: for rheumatism and gouty and rheumatic swellings, Aconite and Colchicum Liniments are sometimes used. St. John Long's celebrated Liniment

was made thus:—Spirit of Turpentine,  $3\frac{1}{2}$  ounces; Rose-water, 3 ounces; Strong Aëtic Acid, 6 drachms; Oil of Lemon, 10 minims; rub down the Turpentine with the yolk of an egg, then add the other ingredients; to be applied with a sponge previously dipped in hot water and squeezed dry; shake the bottle, pour out a table-spoonful in a saucer, let the sponge absorb it, and then therewith pat over the nape of the neck for about five minutes; do this daily until the skin gets sore and irritated, then make the same application lower down, between the shoulders, keeping to the course of the spine. A good way of applying any stimulating Liniment, is to wet with it the inner surface of *Spongia Piline*, and lay it on the desired part; in this way there is no evaporation of the volatile principles which are, consequently, more active.

LINGUA (Latin for the tongue). Hence we have the terms *lingual* and *lingualis*, the former being applied to the gustatory nerve, and to veins, arteries, &c., of the tongue, and the latter to a muscle of the Tongue (which see).

LINSEED. The seeds of the common Flax (*Linum Usitatissimum*) belonging to the genus *Linum*, order *Lineæ*, possess demulcent properties which render them valuable adjuncts to medical treatment; we give a cut of this plant. Ground, they form what is



generally known as Linseed Meal, so useful for poultices, or soothing applications, to ulcerated or inflamed parts: it allays irritation and excitement, and promotes suppuration, hence it is commonly used for

abscesses and other local affections, in which it is desirable to bring matters to a crisis as speedily as possible. (See *Poultice*).

From these seeds, too, we obtain, by cold expression, Linseed Oil, which besides its great utility in the fine and useful arts, is a good application for burns, when mixed with equal proportions of Lime Water. (See *Carron Oil*).

*Linseed Tea* is a common domestic remedy for colds, coughs, and irritations of the urinary organs; it is the *Infusum Lini* of the Pharmacopœia, and may be made thus:—Take of Linseed, 6 drachms; Liquorice Root, 2 drachms; bruise or slice the latter, and pour on both a pint of boiling water, let it stand for four hours near a fire, in a covered vessel, then strain, and it will be fit for use as soon as cool; a little Honey, and a tablespoonful of Lemon Juice will render it very agreeable to the palate, and perhaps more efficacious.

The *Linum Catharticum*, or Purging Flax, is another plant of this genus, which is sometimes employed medicinally. It owes



its activity to a peculiar drastic principle, which has been called *Linin*, and which is afforded by the plant after the flower has fallen. Muscular rheumatism, catarrhal affections, and dropsy, are the diseases in which this plant has been found most efficacious; it has also been given with advantage in biliary disorders: it is generally administered in the form of Extract, in doses of from 4 to 8 grains, twice or thrice daily; the dried herb in doses of 2 drachms or more,

has been recommended for obstinate rheumatism.

Linseed Oil is sometimes given internally as a laxative; the dose is from 4 drachms to 1 ounce; in Milk, is the pleasantest way of taking it: the dose of the Infusion is about a wineglassful occasionally.

LINT is a preparation from the fibres of the flax plant; formerly it was prepared from old linen alone, scraped to make it soft and woolly; but now, so large is the demand, that the new material is employed, and, owing to improvements in machinery, we get it in pieces of any required width and length, instead of in small scraps as before. The new Patent Lint is thicker, softer, and more uniform in texture than the old sort, and, if it could but be made to tear easily, it would be perfect. Every one who has had to do with surgical treatment, either professional or domestic, knows the value of Lint, and Linen rags; the former can be obtained much more cheaply than formerly, hence the latter are not set such store by as they were, but they should never be needlessly wasted or destroyed. Cotton is harsh and irritating; linen soft and absorbent, hence its fitness for application to tender and inflamed parts.

LIP (in Latin *labium*, or *labrum*). The edge or border of the mouth. In man, and some other animals, the lips are two fleshy muscular parts, composing the exterior of the mouth; in man they cover the teeth, and form part of the organs of speech, being essential to the utterance of certain sounds, called *labiates* in consequence. These parts owe their red colour to their extremely vascular structure, and the thinness of the covering membrane; and their sensitiveness, to their abundant supply of minute nerves. By the colour and general appearance of the lips, we may often judge with tolerable accuracy of the health of the individual; if they be pale, and thin, and shrunken, there is a deficiency of the red globules in the blood, and a want of vigour in the circulation; this we find to be the case in *Anæmia* (which see), and some other forms of disease. When the lips are full, and have more or less purple in their tint, we know that the blood does not undergo its proper changes, and that there is danger of congestion towards the brain. The lips may be the seat of several inflammatory and other diseases; in the lower one, especially, with those who have habitually smoked a short pipe, we not unfrequently get *Cancer* (which see). They are often chapped and cracked by exposure to cold, and it is sometimes a difficult matter to heal them; the following is a good form



for *Lip Salve* to be used in such a case :—Take of White Wax  $2\frac{1}{2}$  ounces, Spermaceti,  $\frac{1}{2}$  an ounce, Almond Oil 3 ounces, melt together, stir well, and put by to cool ; apply to the lips on going to bed at night ; it may be made of a pretty pink colour by tinting the oil first with a small piece of Alkanet Root, which should be taken out before the other ingredients are introduced. When the lips heat and burn much, a little cold cream will be found a pleasant and serviceable application.

**LIPOMA** (Greek *lipos*, fat). An adipose tumour, formed of fatty unorganized substance, or, as Hooper termed it, a *Lipomatous Tumour* (which see).

**LIPPITUDO** (Latin *lippus*, blear-eyed). Applied to a chronic catarrhal inflammation of the eye-lids. This affection commonly begins towards the angles of the eye, and is thence called *Lippitudo angularis* ; when attended with tingling and itching it has been termed *pruriginosa*, and sometimes *psorophthalmia* ; syphilitic eruption on the eyelids of infants is called *L. syphilitica neomontanorum*. None of these cases are open to domestic treatment, and, indeed, little can be done for them by the best medical skill. The Blear Eyes with which old persons are often affected, may be somewhat relieved by a collyrium of Sulphate of Zinc, about 6 grains in an ounce of Distilled Water ; the eyes to be damped occasionally with a piece of lint dipped in the liquid.

**LIQUID** (Latin *liqueo*, to melt). This may be shortly described as an elastic fluid, or a flowing substance, whose parts change their relative position on the slightest pressure, so that they separate by their own weight, and may be divided drop by drop. Liquids are in an intermediate state between solid and gaseous substances ; they are not properly fluids, although that term is often applied both to them and gases ; that is, unless we term them *non-elastic*, and the air and gases *elastic fluids*. All of these substances with which we are acquainted, except Mercury, are compound liquids ; or they may be either simple gases combined, as Water and Nitric Acid ; or gases with a solid base, as Sulphuric Acid, Alcohol, Ether, &c. ; or solids combined, as Phosphoret of Sulphur, and Sulphuret of Carbon. It would, however, lead us further than is necessary into the realms of chemistry to pursue this subject.

From the above root we have also *Liquefaction*, that is the passing of a substance from a solid to a liquid state ; this is one of the effects of heat or caloric. The term is

sometimes synonymous with *fusion*, with *deliquescence*, and with *solution*.

**LIQUIDAMBER** (Latin *liquidum*, a fluid and *amber*, the aromatic substance which distils from trees). This is the name of a genus of plants, chiefly American ; among which is the species which furnishes the liquid *Storax* (which see).

**LIQUEUR**. French for a spirituous liquor composed of Alcohol, Sugar, Water, and some aromatic substance for imparting flavour, &c. The French distinguish three qualities of these—viz., the *Ratées*, or Simple Liqueurs, in which the Sugar, Alcohol, and aromatic substance are in small quantities, as the Anisi Water, Noyau, &c. ; 2nd, the *Oils*, or fine Liqueurs, containing a larger proportion of the saccharine and spirituous matters, as the *Anisette Curasee* ; 3, the *Creams*, or Superfine Liqueurs, which are yet stronger than the last ; such are *Rosoglio*, *Maraschino*, &c.

The same aromatic infusion may give its name to Liqueurs of different qualities, according to its strength ; thus we have *Eau-de-noyau*, *Crème-de-noyau*, &c.

We mention these French Liqueurs, but to warn our readers against the use of them : very pleasant and toothsome are they, but the spirit which they contain renders them objectionable, even if the flavouring is innocent, which it is not at all times ; the Bitter Almond, for instance, in the Noyau, is of a deleterious nature, and the rich luscious taste is but a temptation to drink that which is actually poisonous. Of the *Spirituous Liquors* which are now common in this country, enough has been said under the heads of *Alcohol*, *Spirits*, &c. ; but of those which more immediately concern our subject, the *Medicinal Liquors*, it behoves us to speak ; these are solutions, or intimate admixtures of solid with fluid bodies, the dissolving fluid being termed the *solvent* or *menstruum*. We give a list of the *Liquors* named in the latest editions of our three chief Pharmacopœias ; *L. Ammoniacæ Acetatis*, *L. A. Citratis*, *L. A. Fortis*, and *L. A. Sesquicarbonatis* ; (for the proportions, doses, &c., of these refer to *Ammonia*). We have next *L. Antimonii Tartarizati* (Antimonial Wine ; see *Antimony*) ; *L. Arsenici Chloridi*, *L. A. Hydrargyri Hydriodatis* ; to these we should add, although out of the alphabetical order, *L. Potassæ Arsenitis*, all preparations of *Arsenic* (which see) ; *L. Barii Chloridum* (Liquor of Chloride of Barium, sometimes given in scrofulous cases, but not often), *L. Calcis*, *L. Calcis Chloridi*, and *L. Calcis Chlorinata*, preparations of *Lime* (which see) ; *L. Chlorinii*, a solution of

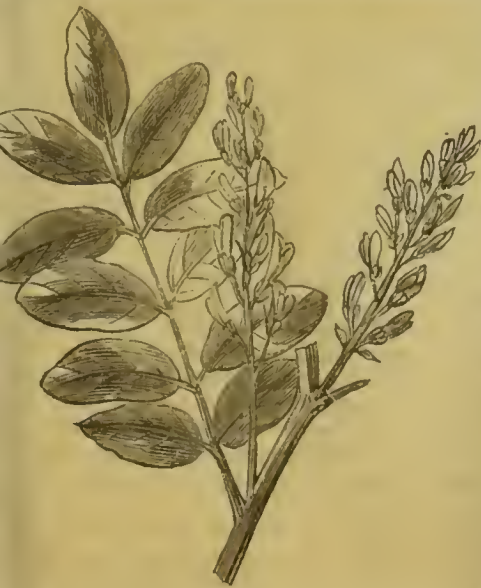
*Chlorine* (which see), *L. Cupri Ammonio Sulphatis*, a solution of the Ammonio Sulphate of Copper (which see), *L. Ferri Penetratis*, a solution of Nitric Acid and Iron (which see), *L. Hydragyri Penetratis*, a solution of Nitric Acid with Mercury. (which see), *L. Morphia Acetatis* and *L. M. Hydrochloratis*, solutions of the Acetate and Hydrochlorate of Morphine (which see), *L. Plumbi Diacetatis*, a solution of the Acetate of Lead (which see), *L. Potassæ*; *L. P. Carbonatis*; and *L. P. Iodidii Compositus* solutions of the Carbonate and Iodide of Potash, (which see), *L. Sodæ Carbonatis*; *L. S. Chlorinatæ* (see Soda); *L. Zincæ Chloridi*, a solution of Chloride of Zinc (which see).

Then we have what are termed the *Liquors of Surfaces*, the fluids poured out on the surfaces of the various cavities of the body, such as the *L. amnii*, the fluid contained in the *Amnium* (which see); *L. cotunnii*, a limpid fluid found in the vestibule of the ear; *L. enterici*, the natural secretion of the interior coat of the bowels; *L. pericardii*, a serous fluid contained in the pericardium.

**LIPAROCLE** (Greek *lipos* fat, and *kele* a tumour). A species of sarcocele, in which the substance constituting the disease is Fat (which see).

**LIPYREA** (Greek *leipo*, to leave, and *pyr*, heat). Absence of heat; that coldness of the extremities which is a characteristic of some fevers.

**LIQUORICE.** The root of the *Glycyrrhiza Glabra*, which grows wild in many countries,



and is cultivated in some parts of England. This plant belongs to the leguminous, or pod-bearing tribe, and the extract from its root is well known, and much used under the name of Spanish juice, or Spanish Liquorice; its demulcent properties render it very useful in coughs and bronchial irritations; it is also used in heartburn, and may be taken in considerable quantities without disordering the stomach, or causing thirst. This extract is often used to cover the taste of more nauseous medicines. Good Spanish juice is hard and brittle, breaking short off when struck; it enters into the composition of many kinds of lozenges, the Bath Pipe and Pontefract Cakes among others. A soft Extract of Liquorice is used by druggists in the composition of pills, and the powdered root is also much employed.

**LIRIODENDRON TULIPIFERA.** The Tulip Tree, the bark of which is a stimulating tonic, and has been used in America as a substitute for Peruvian Bark in intermitte fever; and has also been found serviceable in chronic rheumatism and dyspepsia; the dose of the Powder is from 1 scruple to 2 drachms.

**LISPING.** A species of psellismus, or defective enunciation; sometimes caused by an unusual length of tongue; sometimes by the loss of the front teeth, but often by affection. See *Psellismus*.

**LITHAGOGUE** (Greek *lithos*, a stone, and *ago*, to expel). Any medicine given to dissolve or expel calculi in the bladder.

**LITHARGE** (Greek *lithos*, and *argyros*, silver). An oxide of lead in an imperfect state of vitrification; this is produced in the process of refining which lead undergoes for the purpose of separating the silver which it contains: when white, the substance is called Litharge of Silver; when red, Litharge of Gold.

**LITHIA** (Greek *lithos*, a stone). A name applied to the Protoxide of Lithium, an alkali discovered in the earthy mineral called Petalite, and hence termed Lithia from a stone; it appears, in its properties, to occupy an intermediate position between the alkalis and the earths. A urinary calculus has also been called *Lithia*, as well as *Lithiasis*, and *Lithus*.

From the same root we get also several other medical terms, such as *Lithopedion*, a kind of stony mass into which the fœtus has been converted in the uterus; when this assumes the character of bone, it is termed *osteo-pedion*. Then we have also *Lithic Acid*, a principle which is constantly present in healthy urine, and which is



generated by the action of the kidneys; its salts are called *Lithates* or *Urates*; *Lithotriptics* or *Lithonthriptics* are also names given to medicines given to dissolve stone in the bladder; and *Lithonriptor*, is the name of an instrument used for crushing, or reducing calculi to small pieces, so that it can pass out with the urine.

LITHOTOMY is the operation of cutting into the bladder in order to extract a stone there. We have various modes of performing this operation, into the particulars of which we need not enter, for, of course, only a surgeon could attempt to perform it; for one of these, the lateral operation, a peculiar instrument is used by the French surgeons, which they call *Lithotome-cache*.

LITMUS, sometimes called *Turnsole*. This is a blue pigment obtained from the *Lichen Oreilla*. In an early stage of its preparation it is of a purplish red colour, and is then called *Archil* or *Orchil*. Litmus paper, which is prepared by digesting powdered Litmus in Water, and saturating white paper in the Solution, and then drying it, is used by chemists for detecting the presence of Free Acid, which instantly turns the blue into a bright red.

LIVER. This is the largest glandular apparatus in the body, and one of its most important offices is to secrete the bile; it is divided into three lobes—viz. the Greater, the Smaller, and the *Lobulus Spigelii*. The first is situated in the right hypochondriac region of the abdomen; the second in the epigastric region; and the third in the left side of the great lobe, having two prolongations, which have been termed the *Lobulus caudatus* and the *Lobulus quadratus*.

The Liver weighs on the average about four pounds; although to the naked eye it looks like a solid substance, it is yet what is called a compound gland, that is, made up of a number of smaller glands, bound together by cellular or areolar tissue. Each of these little glands, or lobules, as they are called, is about the size of a millet seed, and is composed of a minute ramification of the hepatic artery and vein—the vessels whose special office it is to afford nutriment to the Liver—of a branch of a portal vein by which the blood returns from the intestines through the Liver to the heart, and which is forced into the cells of the duct, which conveys the bile off from the Liver. There is no doubt now that this bile is entirely secreted from the venous blood, it may be of the portal system; or if it continues in the hepatic veins, having passed into them from the hepatic artery. By this theory we can well understand how any im-

pediment in the flow of blood from the Liver to the heart is likely to cause congestion of the former organ, and how, on the other hand, any obstructions in the Liver is likely to act upon the heart and cause irregularity of operation there; thus, with sluggish Liver we get febrile and often irregular pulsations. As soon as the bile is formed, or secreted in the cells of the Liver, as much of it as is required to form *Chyle* (which see) passes into the digestive canal, while any overplus passes into that convenient reservoir the *Gall Bladder* (which see).

Having thus an important duty to perform in the animal economy, it is of the utmost consequence that the Liver should be kept free from disturbing agencies, so that it may be in a proper condition for the discharge of its functions. The evil to which it is most liable is a disturbance of its circulation, causing either active or passive congestion, both of which are by no means uncommon conditions of the organ; in the former case, there will be an increase in the flow of bile; in the latter case, probably a decrease, or an altered state of the secretion. Sometimes an inflammation of the organ occurs, but this is more common in hot climates than with us; it is called in scientific language *Hepatitis*; in this disease we have suspension of the secretion altogether, and a softening or hardening of the substance of the Liver, or the formation of abscesses, according to the degree and nature of the disease.

*Active Congestion of the Liver* may be a consequence of an irritated state of its tissues, owing, probably, to the retention in the blood of the materials which ought to have been taken up by the kidneys, the skin, or some other excretory organ; or it may be owing to the pressure of too much carbonaceous matter in the food; or there may be some local cause, some organic disease of the Liver itself. Either of these will tend to an excessive secretion of bile, and cause what are called bilious disorders of the stomach.

*Passive Congestion of the Liver* is usually the result of some mechanical impediment to the due supply of blood to the organ, or to its return from thence; the mischief may be an impeded action of the heart, or a defective operation of the functions of the lungs; or it may be caused by continued pressure upon the seat of the Liver, such as results from leaning at a desk, or remaining in a stooping position; persons of sedentary habits are likely to be affected in this way. It may be merely what is called "a sluggish Liver;" there is a diminution in the

quantity of the bile, but no alteration of its quality; in the more severe forms of Passive Congestion, however, the bile, after its secretion has been suspended for a time, becomes acrid and plentiful, causing, when it passes into the intestines, much constitutional disturbance.

*The Symptoms of Congestion* are generally great uneasiness in the right side, and a dull, heavy pain near to the shoulder-blade of that side; if *active*, as before observed, the bile will be plentiful, colouring the evacuations, and producing often a bitter taste in the mouth, and leading, sometimes to *Jaundice* (which see); if *passive*, there is also the same uneasiness and pain in the region of the Liver, with a diminished flow of bile, or a changed condition of it, as before described; and after awhile there is probably *acute inflammation* set up, which generally seizes on the substance of the Liver, and involves the whole, or only a part of it; most commonly the former is the case.

In the acute stage of inflammation there is pain in the right side, which is increased on pressure, or when a deep breath is drawn; there is usually, too, quick breathing, often a cough, but not always either of these. Nearly always there is pain in the right shoulder, and more or less of yellowness of the eyes, and, indeed, of the whole skin; occasionally absolute jaundice; the urine is high coloured, and the fauces either pale and clayey, or tinged with greenish yellow bile: vomiting, too, is sometimes a symptom.

*Treatment of acute Liver inflammation* should be active measures of depletion to prevent the formation of abscesses. If the system will bear it, there should be Cupping or Leeching over the seat of the organ, to be followed up with hot Bran Poultices, and afterwards by a Blister, the latter to be several times repeated, if required: the bowels should be freely opened, and the system reduced by Calomel combined with Colocynth, or some other active purgative, to be followed by a saline aperient mixture as under. Epsom Salts 6 drachms, Liquor of Acetate of Ammonia 1oz., Tartrate of Potash 2 grains, Wine of Colchicum 1 drachm, Camphor Mixture, sufficient to make 6 ounces; 1 oz. to be taken every four hours. The Calomel be kept up for some time in small doses, combined with Opium if the pain is violent. When there is reason to believe that suppuration has taken place, the treatment must be altered, and nourishing food and tonics given with mineral acids, such as the Muratic, with Gentian. In chronic inflammation

the pains may be relieved by bleeding, dry cupping, repeated blisters, and small doses of Mercury; Grey Powder with Rhubarb, or Blue Pill will be best. Epsom Salts, or Cheltenham Waters should be taken regularly, with moderate exercise. A light but nourishing diet, and if possible, change of air and scene. For further particulars respecting Liver disease see *Bile*, *Dyspepsia*, *Jaundice*, &c.

**LIVID or LIVIDITY** (Latin *liveo*, to be black and blue). The discolouration which occurs in the body in some diseases of the heart, &c. Also the bluish mark caused by a blow or fall, and the dark circle round the eye which may be observed in some forms of disease.

**LIXIVIA** (Latin *lix* or *licis*). Anciently applied to water or liquor in general; or to a lye or ley made of ashes, and therefore to the impure potash: Pliny called this *Lixivius cinis*, Ley-ashes; *Lixivium vinum* is the juice which runs from grapes before they are pressed; *Lixivation* denotes the application of water to a saline body, the solution obtained being the *lixivium* or ley; *Lixivium tartari*, or tartar-ley is the *Liquor Potassæ sub-carbonates* of the old Pharmacopœias—in which also we find several other applications of the term *Lixivia*.

**LOBE** (Latin *lobus*). A term applied to several parts of particular organs, such as to the brain, whose lower surface is divided into the *anterior*, *middle*, and *posterior Lobes*; the liver, lungs, and ear, whose lower external part is called a Lobe; the *Lobus of Morgagni*, a lobe at the base of the prostate, named after the discoverer.

**LOBELIA INFLATA**. This is the scientific name of the Indian tobacco or Emetic Weed; a plant of the natural order *Lobeliaceæ*, which is common in the United States of America. The whole plant is dried and used medicinally; it owes its activity to a peculiar alkaloid called *lobelina*, and is a good diaphoretic and expectorant in small doses; in large, antispasmodic, sedative, and emetic; becoming, in over doses, poisonous like tobacco. It is sometimes given to relax the muscles in strangulated hernia, strictures, &c.; but more commonly to relieve spasmodic asthma. To produce vomiting the Infusion may be given in half-ounce doses every half-hour, or the Powder in from 5 to 10 grain doses, beginning with the smallest, and gradually increasing, in plenty of Warm Water. The dose of the Extract is from 1 to 2 grains; of the Tincture from half a drachm to 2 drachms; of the Etherial Tincture from 10 minims to 1 drachm. There is also a Syrup and Vinegar





of Lobelia, but they are very rarely used, and not easily attainable.

**LOBELIA SYPHILITICA.** The Blue Cardinal Flower, a plant of the natural order *Lobeliaceæ*, which was considered by the North American Indians a specific for syphilis, but was found on trial to be quite inefficacious in that complaint. It is emetic, cathartic, and diuretic in its action.

**LOBULUS** is the diminutive of *lobus*, signifying a small lobe, such as the *L. spigelii* situated at the left of the lobe of the *Liver*, (which see); *Lobule of the par vagum*, the name given to a small tuft at the inferior part of the cerebellum. See *Brain*.

**LOCATELLI'S BALSAM.** A nostrum once in high repute, but now deservedly out of use; its composition was Hog's-lard, Yellow Resin, Olive Oil, Venice Turpentine, Yellow Wax, and Dragon's Blood melted together and made into an electuary; and this delectable mixture was actually swallowed by thousands, who attributed marvellous effects to it.

**LOCHIA** (Greek *locheyo*, to bring forth). The uterine discharge which takes place some days after childbirth; in cattle it is called the cleansings. See *Labour*.

**LOCK-JAW.** This is the popular name for a spasmodic seizure of a dreadful and generally fatal character, which surgeons call *tetanus*. By this disease, not only are the muscles of the jaws, but those also of the whole body thrown more or less into spasm, often so violent as to break the teeth or bones. The most common form of this fearful malady is that in which the muscles of

the neck and throat are chiefly affected; it generally comes on in a gradual manner, there is slight stiffness in the back of the neck, which extends to the root of the tongue, causing great difficulty in swallowing; then the whole muscles of the face probably become implicated, there is soon tightness of the chest, and the spasmodic pain extends to the back; while the teeth become so closely and firmly set together that no food of any kind can pass them. If the spasm extends further than this, the muscles of the trunk, and, lastly, of the extremities become involved, contracting and drawing the body to the side, or backward as the case may be, so as to form an arch, resting on the head and heels. Dr. Turner says, "The suffering caused by the tetanic spasm is frightful to contemplate; the face is pale, the bones contracted, the skin covering the forehead wrinkled, the eyes fixed and prominent, sometimes suffused with tears, the nostrils dilated, the corners of the mouth drawn in, the teeth expanded, and the features fixed in a sort of grin. The breathing is performed with difficulty and anguish; there is great thirst, and the sufferings are greatly increased by attempts to swallow; the pulse is feeble and frequent, the skin is covered with perspiration; and yet, with all this torture the intellect remains clear and unaffected. Death at length closes the scene, being due partly to suffocation, and partly to exhaustion."

The *cause* of tetanus is frequent exposure to cold and damp, or it may be some local injury, such as a cut, puncture, or laceration; it more commonly results from either of these in warm climates, although intense cold alone has not unfrequently produced it: it often affects a large number of the wounded on a field of battle, who are exposed to the vicissitudes of the weather. Lock-jaw, which is produced by a wound, will sometimes show itself in four days, sometimes not for two or three weeks after the wound has been received.

The common *treatment* for it, is the warm bath, or, if this cannot be had, enveloping the whole body in a blanket wrung out of hot water; the administration of enemata, consisting of thin Gruel, with an ounce each of Castor Oil and Turpentine: if the patient can swallow, give large doses of Opium in the liquid form, say from 30 to 60 drops of Laudanum every half-hour, until it manifestly affects the system. Cold Water, poured on the head from a considerable height, may also be of service, and friction with a stimulant liniment, such as Turpentine and Opodeldoe, down the course of the spine. The

strength must be supported by food in some way, and the desperate expedient may be resorted to of knocking out a front tooth or two, for the purpose of making an opening, through which Beef Tea and other fluid nourishment may pass into the stomach by means of a tube; sometimes this is conveyed by the nose, passing it behind the teeth, and sometimes by means of a clyster.

Dr. Jackson, an army surgeon in India, where tetanus often occurs from very slight causes, says, that he has tried all kinds of remedies, but has found none of much service except Chloroform combined with Indian Hemp and Aloes—how administered we are not informed, but presume that it must be by inhalation of the first, and injection of the two last.

**LOCUSTIC ACID** (from the Latin *locusta*, a grasshopper). An acid procured from grasshoppers, differing little from Acetic Acid.

**LOGWOOD.** The wood of the *Hæmatoxylin Campechianum*, belonging to the natural order *Leguminosæ*, shaved or rasped small, is used medicinally, in the form of Decoction, and also of Extract, in chronic diarrhoea and dysentery, as well as in infantile cholera. It acts as an astringent, without irritating the coats of the stomach, as some medicines of this class do. The dose of the Decoction, which is made by boiling 10 drachms of Logwood Chips in a pint and a-half of water, until it is reduced to a pint, is from 1 to 2 fluid ounces; or for a child two years old, from 2 to 3 drachms; of the Extract, from 10 to 20 grains may be taken.



**LOINS.** See *Lumbus*.

**LONGEVITY**—*Length of Life*. The duration of human life, although uncertain as regards the individual, is yet exactly determinable on the average of a large number of cases; were it not so, there would be no correct basis for the calculations of insurance companies, which rear their structures of figures upon bills of mortality, and know to a fraction what rate of premium they can safely charge. It is not within our province to enter into the calculations which enable them to do this; sufficient for our purpose will it be to speak of some of the causes which militate against the duration of life. Neglect in childhood, bad and insufficient food, defective ventilation and drainage, want of attention to cleanliness in house and person, unhealthy occupations, indulgence in excesses of any kind; epidemic and endemic diseases, arising, often, from one or more of the above causes: by these it is that our bills of mortality are swelled, and thousands are hurried to their graves long before the natural term of their existence is ended. The three score years and ten allotted to man is reached by comparatively few; and although we now and then read of a case of great longevity, yet this is quite an exception to the rule, and therefore a matter of wonderment. See *Age, Mortality*.

**LONGING.** The morbid appetite which occurs in women during pregnancy—a craving for certain articles of diet, sometimes of the most out-of-the-way kind: if they are attainable, and not actually deleterious, it is best to satisfy this longing; if not, its gratification may be denied, without danger of the consequences which are popularly supposed to follow such denial. See *Pregnancy*.

**LONGITUDINAL.** A term applied to two sinuses of the dura mater. See *Brain*.

**LONGUS COLLI.** A long muscle at the back of the œsophagus, which supports and bends the neck. *Longismus dorsi* is the name applied to the muscle between the spinous processes of the vertebræ and the angle of the ribs.

**LONG SIGHT.** An affection of the vision in which the objects are only seen correctly when they are a long way off. Cullen termed it *Dysopia proximorum*; it is the *Vue longue* of the French surgeons. See *Sight*.

**LOOSENESS, or Purging.** See *Diarrhœa*.

**LOOSESTRIFE.** Scientific name *Lythrum Salicaria*, a native plant of the natural order *Lythraceæ*, sometimes called Purple-spiked Willow-herb; has demulcent and



astrigent properties, which render it useful in inveterate diarrhœa. Dose, of the Powdered Herb, 1 drachm three times a-day ; of



the Decoction, made by boiling 1 ounce of the Herb in a pint of Water, 2 fluid ounces may be given.

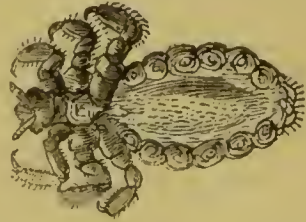
**LORDOSIS** (Greek *lordos*, curved). Procurvation of the head and shoulders, or anterior crookedness. Posterior incurvation was formerly called *cyrtosis*, and the lateral form *hybosis*.

**LOTION** (Latin *lotio*). A wash, or any kind of liquid remedy intended for outward application ; properly the term includes collyria, embrocations, fomentations, and liniments, but its application is generally restricted to those liquid applications intended for any part of the body, which are laid on cold, and not rubbed in.

The Lotions of the Pharmacopœia will be found mostly under the heads of *Aqua* and *Liquor* ; they may be elassed in four divisions—viz., astringent, cooling, sedative, and stimulating. Almm, Sulphate of Zinc, or any astringent substance in solution, also Ice, and very Cold Water, make the first ; of the second, Plain Water is a good example, or it may be combined with one-third of Spirit, or with Vinegar ; the Lead Lotion, such as Goulard Water, is also cooling, as well as astringent and sedative. A lotion of Prussic Acid possesses the latter quality, as do Decoctions of Opium, Poppy, Hemlock, &c. For the treatment of surface inflammations, sprains, dislocations, fractures, wounds, &c., Lotions are amongst the most valuable

aids to the medical man. Various formula for their preparation will be found scattered through this work, under the heads of the diseases or injuries in which they are chiefly used, or of the substances, such as lead, which form their bases.

**LOUSE.** This humble parasite of the human body is generally the accompaniment of filth and squalor, and disease and wretchedness, and flourishes and increases in exact



ratio with the neglect of personal cleanliness. The mere idea of it is repulsive and disgusting, and when we examine the creature under the microscope, we find that it more than realises all our preconceptions.

**LOVAGE.** The *Levisticum Officinale* of botanists, belonging to the natural order, *Umbelliferae*, is sometimes grown in gardens as a salad plant.



It has a strong and peculiar odour, and abounds with a yellowish, pale green, resinous juice. The roots and fruit are aromatic, stimulant, and diaphoretic, and have been used as remedies for flatulency, and hysterical disorders arising from uterine obstructions : *Lovage Cordial*, is prepared by steeping the fresh roots in brandy, it was once a favourite stomachic, but we seldom or ever hear of it now.

**LOW SPIRITS.** This is a state of mind generally associated with dyspepsia, in which all kinds of imaginary evils are conjured up, and the slightest pain, or unusual feeling, is looked upon as the precursor of some dreadful malady: persons so affected always fancy themselves on the verge of danger, and hence are fearful and irresolute in the steps they are called upon to take; they may be of sound mind in other respects, but in regard to their own bodily state and condition are decidedly monomaniacs. The affection appears to depend upon a want of energy in the brain, the causes of which are various, it may arise from intense study, some great stroke of affliction, indolence and inactivity, or excessive indulgence in venereal or other excesses, or deranged digestion. In either case the patient should be treated with gentleness and consideration, so as to show that interest is taken in his welfare, he can never be either laughed or forced out of his delusion, therefore the endeavour should be to direct his attention—to take him out of himself as it were. Change of scene, cheerful society, engaging the mind in some art or pursuit, which although not too laborous, requires the use of the mental powers; exercise, tepid and shower baths, are among the remedial measures in this case. The bodily health must be carefully watched and preserved by such means as may be necessary. See *Hypochondriasis*, *Nervousness*, *Vapours*.

**LOXIA** (Greek *loxos*, twisted). *Wry Neck* (which see). From this root we have the term *loxarthros*, an obliquity of a joint, without spasm or laxation.

**LOZENGES.** (Latin *Trochisci*). These which are, or ought to be, made chiefly of sugar are much relished by children; and are, therefore, often made use of as vehicles for the administration of medicines, especially of such as, from their powerful nature, are divisible into very small doses. In throat affections also, and other cases where it is desirable to apply the remedial agent gradually, Lozenges are useful: thus, Nitrate of Potash may be advantageously taken in this way, and also Ipecacuanha and Morphine, where there is constriction or bronchial irritation; only in the case of the opiate, as in that of other strong medicines, care should be taken to ascertain the precise quantity contained in each Lozenge, so that an overdose be not given: sufficient attention is not paid to this by Lozenge makers and venders generally, so that the medical practitioner scarcely likes to recommend this method of administration, although he knows the advantage of it in

many cases. Very little is done by the apothecary now in the way of making lozenges, this branch of the business being pretty much in the hands of the confectioner, who often adulterates the sugar with “daff,” a mineral white, in other words Plaster of Paris. Sugar confections are very commonly adulterated in this way, and sometimes to a large extent, and the colouring matter which renders them so gay and attractive, is frequently of a most poisonous nature, so that one is almost afraid of giving or recommending sweets to children. If given at all, they had better be the transparent uncoloured kinds. We are not speaking now of the medicated Lozenges, of which there are in the Pharmacopœia 10 different sorts, viz.—Acacia Lozenges (*Trochisci Acaciæ*) made with Gum Arabic, Starch and Sugar, Tartaric Acid Lozenges (*T. Acidi Tartarici*), made with Tartaric Acid, Sugar, and Volatile Oil of Lemons; much as the common Acidulated Drops ought to be, but these we fear are too often prepared with Sulphuric Acid. Chalk Lozenges (*T. Cretæ*), made with Prepared Chalk, Gum, Nutmeg, and Sugar; good for looseness of the bowels in children. Liquorice Lozenges (*T. Glycyrrhizæ*), made with Extract of Liquorice, Gum, and Sugar; much like the Bath Pipe. Lettuce Lozenges (*T. Lactuarii*), made with Extract of Lettuce or Lactucarium; slightly anodyne. Magnesia Lozenges (*T. Magnesicæ*), made of Carbonate of Magnesia, Nutmeg, and Sugar; good for acidity and heartburn. Morphine, and Morphine and Ipecacuanha Lozenges (*T. Morphicæ* and *T. Morphiæ et Ipecacuanhæ*), anodyne and expectorant. Opium Lozenges, the same. Peppermint Lozenges (*T. Menthæ Piperitiæ*), good for flatulency. Soda Lozenges (*T. Sodæ Bicarbonatis*), anti-acid. There are also Cinnamon, Ginger, Rose, Tolu, and many other kinds of Lozenges, for which there are no authoritative formula given, and which, therefore, are not recognised in medical practice. See *Sweets*.

**LUES VENEREA.** Latin for the plague of Venus; an old name for venereal disease, or syphilis, &c.; it has also been called *Morbus Aphrodisius*, *Morbus Gallicus*, and several other names.

**LUMBUS,** the loins. From this root we have *Lumbar*, the designation of nerves, arteries, &c., belonging to the region of the loins; hence also the *Lumbo-abdominal*, or *Lumbar plexus*, the *Lumbo-sacral* nerves, and the *Lumbo-dorsal* region; and *Lumbar abscess*, a chronic collection of pus which forms in the cellular substance of the loins behind



the peritoneum, and descends in the course of the psoas muscle, hence is sometimes called *Psoal Abscess*.

**LUMBAGO** (Latin *lumbus*, the loins). A rheumatic affection of the muscles of the loins. This, as many of us well know, is an extremely painful affection; the pain being aggravated by any action which brings the muscles involved in the disorder into play. Like sciatica, it is but a modification of rheumatism; nevertheless, it requires, in some measure, a peculiar *treatment*. When accompanied by fever, and much pain, which is aggravated by the warmth of the bed, leeching or cupping is advisable, with aperients and diaphoretics; 3 grains of Calomel at night, with about 10 grains of Compound Ipecacuanha Powder, and a Senna draught in the morning, following it up with this mixture: Solution of Acetate of Ammonia, 1½ ounces; Wine of Colchicum, 1 drachm; Sweet Spirits of Nitre and Simple Syrup, of each 2 drachms; Camphor Mixture, 4 ounces; take a fourth part about every four hours. The Dover's Powder should be continued every night—not the Calomel; about a couple of doses of this, at intervals of a week or so, will be found sufficient. Warm applications to the loins will afford great relief; one of the best is a large bran poultice, applied quite hot all over the loins. Dr. Graves recommends a stream of hot water, directed with considerable force against the part; it is beneficial not only on account of the heat, but also for the mechanical impulse which it gives. When there is no fever with the Lumbago, the best medicine is Volatile Tincture of Guaiacum, 1 drachm in Cinnamon Water, three times a day, with the Dover's Powder at night, and friction with Soap Liniment, and Tincture of Aconite, or Opium, about a drachm to the ounce; or apply a Belladonna Plaister, keeping the bowels freely open with a Colocynth Pill occasionally, or a draught of Senna, or Compound Decoction of Aloes. Decoction of Sarsaparilla, with Iodide of Potassium, may be also given with advantage. In obstinate cases, Acupuncture, Electricity, and Galvanism, have each and all been successfully applied. The following is a good form for a liniment to be used in such cases: Strong Liquor of Ammonia, Tincture of Opium, Spirit of Turpentine, and Olive Oil, equal quantities; rub in warm, night and morning. See *Rheumatism*, *Sciatica*.

**LUMBRICUS** (Latin for slippery) is another name, from this root whence we have *Ascarus Lumbricoides*, the long round worm found

in the intestines; and *Lumbricus Cucurbitinus*, the Gourd Worm, so called because its joints when broken present the appearance of a gourd.

**LUMBRICALES** (Latin *lumbricus*, an earth-worm). A name given to four muscles of the hands and feet, which are so called on account of their supposed resemblance to the earth-worm.

**LUNA** (Latin for the moon). An old alchemical name for silver, hence Nitrate of Silver was termed *Lunar caustic*.

**LUNAR CAUSTIC** (Latin *luna*, the moon). A name given by the old alchymists to the Nitrate of Silver (which see).

**LUNA CORNEA** (Latin for horn silver). A name for the Chloride of Silver.

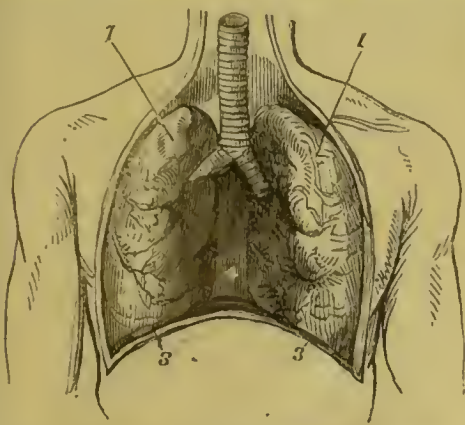
**LUNA FIXATA** (literally fixed moon) was a name given to the Oxide or Flowers of Zinc, formerly much used as a remedy in chronic affections. See *Zinc*.

**LUNACY**. Applied to madness, because it was considered that mad people were much affected by changes of the moon. See *Insanity*.

**LUNCHEON**. This, as our readers are aware, is a kind of intermediate meal between breakfast and dinner; the necessity for it must, of course, depend upon the length of interval between these two meals. With the classes who dine late it is really necessary that they should take some sustenance about one or two o'clock, but it should be of the lightest description—a little fruit, with a crust of bread, or a biscuit, ought to be sufficient; but, too often, the Luncheon is more like a dinner, and, superadded to that heavy meal, gives the digestive organs too much work. Where the dinner is taken at mid-day, or thereabout, of course no Luncheon is required, unless the breakfast is a *very* early one; and when Luncheon is taken before a late dinner no supper can be required; four meals a day being quite as much as the stomach should be burdened with. It was formerly customary for English labourers to have their "lunch" or "cleverer" between their early breakfast and mid-day dinner, and again between that meal and their late tea, which was also supper, and working hard they required it; most of them, we fear, must now be satisfied with three meals a day, without their half-meals to help them on. See *Diet*, *Meals*.

**LUNGS** These are two vesicular organs situated in the thorax or chest, the cavity of which, together with the heart and larger blood vessels, they nearly fill up; so that when the walls of this cavity are compressed, the air is forced out of the minute air cells of which the lungs are composed, into the

several elastic membranes (the bronchi) connected with them; these bronchial passages afterwards unite, and form one tube, the trachea or windpipe, through which the air passes upwards and downwards in the act of inspiration and expiration, or breathing, as it is popularly called. A reference to the following diagram will enable our readers to understand this more clearly. Here it will be seen how each division of the Lungs (1, 1) occupies its own side of the chest; the left is the smallest of the two, because the heart, whose place (4) is between the Lungs, takes up more room on that side than the other. The windpipe, or trachea, at the top has the larynx, or organ of voice; while the lower extremity divides into two branches or bronchi, one for each Lung, on entering which it divides and subdivides into extremely minute tubes, which terminate in the air cells, small membranous cavities, on the walls of which the



blood circulates in a network of veins, in such a way that it is brought into immediate connection with the atmospheric air, which is drawn in by each inspiration, and so obtains its due supply of oxygen; that, and other gases of which the air is composed making its way through the extremely thin membrane which forms the air-cells: thus noxious, as well as healthful vapours, or gases, are introduced into the circulation, and men are poisoned by breathing, as well as by eating and drinking, deleterious substances. If we examine the structure of the Lungs, we find that it is porous like a sponge; when by the action of certain muscles the capacity of the chest is increased, the air rushes in to fill the vacuum, and expansion of the Lungs takes place; then, the muscular movement ceasing, the ribs, by their weight and elasticity, contract and force out the air, and this

alternate expansion and contraction constitutes breathing, in the act of which we see the chest rise and fall. The tubes, air cells, and blood vessels of the Lungs are held together by what is called cellular tissue, and the whole are enveloped in a membrane which covers their surface and also the under surface of the ribs, for which latter purpose it is reflected back; this membrane is called the *Pleura* (which see); also *Bronchi*, *Glottis*, and *Larynx*—all organs intimately connected with the Lungs, and necessary to carry on the work of *Respiration* (which see); also *Breathing*.

A reference to the cut given in our description of the Heart (see Vol. 1 p. 366) will show the relative size and positions of these two most important organs more clearly than the above diagram.

We know that the action of the Lungs may be forced or increased by an exercise of the will; in this case other muscles than those usually employed are called into play; hence the stoop in the shoulders, often observed in asthmatic people, and others with whom breathing is difficult. Mental emotion, and increased bodily exertion, will also cause an accelerated action of the Lungs, as will those inflammatory and other diseases which stimulate arterial action. From 15 to 22 is the average number of respirations in a minute, under common circumstances; but this number may, and often is, very greatly increased by excitement, exercise, or disease.

The average weight of the Lungs in a healthy condition is about 40 ounces; they are, as we have seen, of a conical shape, embracing the heart between them, being internally concave to receive this organ, and externally convex to suit the convexity of the chest; in their narrow part upward they extend a little above the fifth rib, their broad and slightly concave bases resting upon the diaphragm, and extending further down behind than before: their colour is a pinkish gray mottled with black—their shape we have already explained, they hang free in the chest except where they are attached to the spine, or rather to the *mediastinum* by the pulmonary arteries and veins, and by the bronchial tubes on either side; the areola, or cellular tissue, which connects together the arteries, veins, or cells, &c., is called the *Parenchyma* of the Lungs, and constitutes the second distinct tissue, of which they are composed; the 1st, or outer, being the *pleura*, and the 3rd, or inner, the mucous lining of the air passages, or cells into which the air enters when we breathe. So great is their number, that they have



been calculated to amount to 170,000,000, forming a surface thirty times greater than the human body. Every one of these cells is provided with a network of blood-vessels, by means of which the blood is brought into immediate contact with the air over every portion of their surface. When this great amount is taken into consideration, we shall at once feel how necessary it is to supply pure air to the Lungs with every breath we breathe. Here then we have a beautiful and complicated piece of mechanism, in which the purification of the blood is effected, and the power of which, of producing at will a current of air through the Lungs, makes the utterance of vocal sounds easy.

The Lungs of an infant before birth are dark red, and contracted into a small space, within the cavity of the chest; they are firm and specifically heavier than water, in which therefore they sink, whether entire or cut into pieces; they also give out little or no blood, and no air-bubbles arise from them; this, therefore, is considered a good test whether a newly-born infant found dead, under suspicious circumstances, was really born so; if it has ever breathed the Lungs will have become inflated, so as to float on water; they will then be of a pale-red colour, and appear of a loose spongy texture; having expanded, too, so as to fill the cavity of the chest, and cover the heart, as we see them in the diagram of that organ above referred to.

The diseases to which the Lungs are mostly liable, are all, in their first stages, of an inflammatory character; and it is important to ascertain, as soon as they are attacked, in which of the various tissues, or other structures, the mischief resides. *Pleurisy*, *Pneumonia* and *Bronchitis*, are the three chief forms of Lung disease, and the symptoms and treatment of them will be found under their several heads; see also *Asthma*, *Consumption*, *Croup*, *Whooping Cough*, *Inflammation*, *Pthisis*, &c. The state of the Lungs can generally be ascertained with tolerable certainty by means of *Auscultation* (which see); the passage of air into, and through them, giving rise to certain definite sounds well understood by the practised ear, applied closely to the outside of the chest, either with or without a stethoscope. When the Lungs are not affected, these sounds vary but slightly in different individuals; so that any deviation from their ordinary and natural tone, or compass, is easily detected as an indication of disease, which sometimes renders the Lung, so solid, that the air cannot penetrate its tissues, and sometimes fills the cavity which contains it with water; in

either case percnssion will but make a dull heavy sound. Then the power of conducting sound varies according to the condition of the structure, so that an application from without is sure to produce such a response from within, as gives the skilled physician all the information which he requires. To illiterate persons, this process of sounding the chest doubtless appears very mysterious, and he who can thus obtain knowledge of the condition of Lungs, or any other internal organ must appear to them something like a magician; but it is by no means difficult to understand the principles on which such investigations are conducted, and when once understood, the mystery ceases. It requires, however, a delicate sense of hearing, and considerable experience in this branch of therapeutics to enable one to give a decided opinion as to the nature and progress of any mischief which may be going on in the pulmonary cavity of the body.

**LUNGWORT.** The *Pulmonaria Officinalis* of the natural order *Boragaceæ*, has been so called from its supposed efficacy in diseases



of the lungs; it is mucilaginous and slightly astringent, and is regarded as emollient and pectoral; when burnt it yields about the seventh of its weight of ashes, which are very bitter.

**LUPULIN.** A name given by Dr. Ives to the active principle of the *Humulus Lupulus*, or *Hop* (which see).

**LUPUS** (Latin for a wolf). A tubercular affection, occurring especially about the

face, commonly ending in ragged ulcerations of the nose, cheeks, forehead, eyelids, and lips. It is so called from its eating away the flesh like a wolf; it is sometimes called *Noli me Tangere*, or touch me not. See *Skin Diseases*.

**LUSCITAS** (Latin *luscus*, blind of the eye). A term applied by Beer to a distortion of the eyeball, which somewhat resembles squinting, but differs from it in the want of power to move the affected eye when the other is closed.

**LUTE** or **LUTING**. A mixture of clay, sand, and other materials, made up into a stiff substance like dough, and used for closing the joints of retorts, receivers, &c. in chemical experiments, to make them airtight; *Fat Lute* is made of Powdered Pipe-clay and Boiled Linseed Oil formed into a mass like putty.

**LUTEOLIN**. The colouring principle of the Woad, or Dyers' Weed (*Reseda Luteola*).



A native plant which has a bitter taste, and diuretic and diaphoretic properties, although it is not now used medicinally.

**LUXATION** (Greek *luxo*, to put out of joint). The removal, by violence or otherwise, of the articulated surfaces of bones out of their proper situations. See *Dislocation*.

**LYMPH** (Latin *lympa*). A colourless fluid, like water, which circulates in the *Lymphatics*, which are minute tubes, pervading every part of the body; their office appears to be entirely that of absorption; their arrangement is that of a dense network, from which they gradually converge into branches of continually increasing size, until they terminate in two main trunks,

called the right and left great lymphatic veins, through which the Lymph is poured, with the chyle from the thoracic duct, into the right and left subclavian veins. The lymphatics, with the lacteals, constitute the vessels known as absorbents. (See *Absorption*.)

*Lymph* is composed of fibrin, albumen, chloride of sodium, carbonate of soda, phosphates of lime and magnesia, and carbonate of lime. Raspail says it is decidedly alkaline, and considers it, in fact, a variety of chyle, or a colourless blood.

The term *Lymph* is also applied to any thin animal exudation, or watery matter; thus we have many morbid secretions under that name, such as *Vaccine Lymph*, *Adhesive Lymph*, &c.

The most frequent form of spurious cataract is called *Lymph Cataract*, of which Beer observes that only this deserves the name of membranous, as this alone consists of an adventitious membrane, which is the result of inflammation. See *Cataract*.

**LYRA**. A part of the brain sometimes called the *psalterium*, it consists of lines impressed upon the under surface of the posterior part of the body of the fornix. See *Brain*.

**LYSSA** (Greek for canine madness). A term which Dr. Good applied to hydrophobia, which is sometimes called *Entasia Lyssa*.

**LYTTA**. The old name for the *Cantharis vesicatoria*, or blistering fly. See *Cantharides*.

**M**. This letter signifies, in prescriptions, 1st, *Manipulus*, a handful, when herbs, flowers, chips, or any like substance, is ordered; 2nd, *Mensura*, by measure; 3rd, *Misce*, mix. Thus *M. fiat haust* signifies "mix and let a draught be made; and 4th, *Mitte*, send: thus *M. pil viii*, "send 8 pills."

**MACE**. A thin, flat scale, or membranous substance, which envelopes the nutmeg, of which it is in botanical language the *axillus*. It is one of our most highly valued spices, its characteristic properties depending upon the presence of an essential oil. See *Nutmeg*.

**MACERATION** (Latin *macer*, to make soft). The steeping of any substance in a cold liquid—it may be spirits, or water, to soften it or draw out its qualities; *Digestion* is in either hot or cold liquid; *Infusion* is always in hot; *Decoction* means subjecting the substance to continued heat, or boiling; and *Extraction* involves evaporation of the liquid.

**MACHAON**. The name of an ancient phy-



sician, said to be a son of Esculapius the god of physic; hence, particular inventions have been dignified with his name, as *Asclepias Mochaonis*, a collyrium, described by Seribonius; and in old works medicines in general are sometimes called *Ars Machaonia*.

**MACIES** (Latin *macico*, to lean). *Atrophy*, *Emaciation*, *Wasting*, from whatsoever cause, is so denominated. See these heads.

**MACULA** (Latin for a spot). Applied to a small patch or speck of the *Cornea* (which see), and *Eye*. In the plural, *Maculae*, it signifies a permanent discolouration of the skin, generally the result of an alteration in the natural texture of the part. *Maculae*, or spots, have been distinguished as, 1st. *Ephcles*, or sunburn, generally called freckles; 2nd, *Nævus*, or mother spots; 3rd, *Spilus*, or thickening and discolouration of the rete mucosum; 4th, *Moles*. See these heads.

**MADAROSIS** (Greek *madao*, to be bald). A defect or loss of the eyebrows, or eyelashes. See *Eye*.

**MADDER**. The root of the *Rubia Tinctora*, of the natural order *Rubiaceæ*, is chiefly valued for the excellent dye which it furnishes. The plant was formerly considered emmenagogue and diuretic, and was much used in dropsy, jaundice, and female and



visceral abstractions; but is not now recognised as of any importance by medical practitioners. When administered in a state of decoction, it tinges the blood, urine, and even the bones, red. The plant is a native of the south of Europe, in some parts of which it is extensively cultivated for dyeing purposes.

**MADWORT**. A common name of the American plant, *Alyssa plantago*. See *Alyssa*.

**MAGISTERY** (Latin *magister*, a master). This name was formerly applied to almost all precipitates, which were supposed to be subtle and masterly preparations; but at present it is attached to one or two only, and but seldom to these. The sub-nitrate of bismuth is sometimes still called Magistery of bismuth.

**MAGMA** (Greek *maggomai*, to knead dough). Literally a kneaded or squeezed mass of any kind, or a sediment. This is a term which has now become obsolete; it was sometimes applied to a kind of salve.

**MAGNES ARSENICALIS**. An old corrosive preparation of equal parts of antimony, arsenic, and sulphur, mixed by fusion; we are not aware that it is ever used now.

**MAGNESIA** (Latin *magnes*, a magnet, or loadstone). This is one of the primitive earths, having a metallic basis called *Magnesium*. According to Dr. Paris, Magnesia was originally a general term, expressive of any substance which had the power of attracting some principle from the air, and that the peculiar body which we now so designate, was first sold as a panacea by a canon of Rome in the beginning of the seventeenth century, under the title of *Magnesia Alba*, or Count Palma's Powder. It is now administered in three forms, viz., Carbonate of Magnesia (*Magnesia Carbonas*), which is the commonest kind; Calcined Magnesia (*M. Usti*), which is the purest sort, and requires to be kept in stopped bottles; and Sulphate of Magnesia (*M. Sulphas*), which is the Bitter Purging Salts—the *Sal Catharticum Amarum* of the old medical writers: it is a combination of Magnesia and Sulphuric Acid, and is found ready formed in some mineral waters; its having been first procured by evaporation from those of Epsom, gave occasion for the name Epsom Salts, by which it is commonly called; more correctly it is named Sulphate of Magnesia: (for its uses and doses see *Epsom Salts*).

Both the pure Magnesia and the Carbonate are anti-acid, and act as mild laxatives on the bowels; but if given too often, or too largely, as purgatives, they are apt to accumulate, in the intestines, in insoluble masses. We give Magnesia as an anti-acid in dyspepsia, heart-burn, pyrosis, gouty, and lithic disorders. It is a very safe laxative for children, especially when combined with Rhubarb; in this combination it is administered in diarrhoea, and as a common purgative. The dose of Magnesia is from

3 to 5 grains for children; from 10 to 30 grains for adults, according to the required action. In habitual constipation, a combination of Magnesia, Rhubarb, and Ginger is found serviceable: this is commonly called *Gregory's Powder* (which see). A mild effervescent draught, which is slightly aperient, may be made by mixing 1 drachm of Carbonate of Magnesia with 2 table-spoonfuls of Water, and then adding 1 table-spoonful of fresh Lemon Juice, or  $\frac{1}{2}$  a drachm of Citric Acid; it may be rendered more agreeable by the addition of a little grated Nutmeg and powdered Lump Sugar. The Calined Magnesia is always to be preferred; but especially so when there is much wind in the bowels, or when they are in an irritable state. For heartburn, about  $\frac{1}{2}$  a drachm of Magnesia, with 20 drops of Sal Volatile, should be taken just before a meal: about 15 or 20 drops of Compound Tincture of Lavender may be added. A clear solution, called Dinneford's Fluid Magnesia, has long enjoyed a high reputation; it is a mild, and not unpleasant aperient, and may be taken safely by both children and adults, especially if a little Syrup of Ginger be added to it. Magnesia, it should be remembered, only acts as an aperient when there is acid in the stomach; therefore for this purpose it is best taken after fruit of some kind.

MAGNESIA WATER is made by mixing 4 ounces of Carbonate of Magnesia with 1 gallon of water, and impregnating it with 10 times its volume of Carbonic Acid Gas, by means of a forcing pump or soda water apparatus. It makes a clear solution, is a good anti-acid, and an excellent vehicle for anti-acid, and lithontropic medicines.

MAGNET, or LOADSTONE, is an ore of iron found in the mines of Sweden and other countries; it is so called, say some, because the name of its discoverer was Magnes; others derive its name from the city of Magnesia, in Asia Minor, near which it was first found. The artificial Magnet is a small bar of iron or steel, which, when set at liberty, assumes a northerly and southerly direction; these points being termed the north and south poles of the magnet, while the tendency to acquire these directions is called *polarity*.

The Magnet, or Loadstone, in powder, if we are to believe Dr. Paris, formerly entered into the composition of certain plasters, which were supposed to be thereby endowed with the power of drawing arrow heads and bullets out of the body. Paracelsus and others give several forms of preparations of this kind, one of which was

called *Attractivum*, and another *Opodeldoc*—a name which has been since applied to the compound Soap Liniment.

MAGNETISM is that peculiar property of certain bodies, particularly iron and some of its compounds, by virtue of which they naturally attract or repel one another according to determinate laws. This property was first observed in the native Magnet, or Loadstone, as above described.

In considering the nature of this property we must divide the subject into two branches. 1st, *Electro-magnetism*, which comprehends the phenomena resulting from the connexion between electricity and magnetism; 2nd, *Animal-magnetism*, which, on account of its real or supposed efficacy in the cure of diseases, is that branch of the subject with which we have here to do.

Anton Mesmer, a native of Mersburg, in Suabia, who studied at Vienna, and took his degree of Doctor of Medicine in the University of that city in 1776, was the discoverer of the supposed influence of Magnetism in human diseases, and the name Mesmerism was applied to the theory which he propounded, and which was first made known in this country in 1829, by Mr. Richard Chenevix, who published a series of papers in the *London Medical and Physical Journal*. Dr. Elliotson was one of the first English physicians who expressed belief in Mesmerism; he was followed by Mr. Herbert Mayo, Professor of Physiology at King's College, London; Mr. Braid, of Manchester, and others. But notwithstanding the extraordinary effects undoubtedly produced by this mysterious agent, Animal-magnetism has never taken very deep root in the public faith of this country. At present we hear very little about it, although a few years ago it had its advocates and demonstrators on every public platform. Scientific men generally, who have pursued those branches of study which would best enable them to understand the subject, believe that its influence is attributable to the effect of an excited imagination upon the nervous system of the patient; the uncertainty of its operation favours this impression, and renders it next to useless as a remedial agent. There are no known laws by which it can be regulated; no principle, by which to guide its application; with some persons—very many—it is altogether ineffective; with others, it produces effects most strange and incomprehensible. That, by means of a few passes of the hands in certain directions over the face, a patient should be sent into a deep sleep, which goes the length of insensibility to pain—should be rendered locally or gene-



rally cataleptic, or be thrown into a state of somnambulism, with its accompanying conversational power—should be entirely, as it were, under the will of the operator, who has the power of removing the influence, and restoring the patient to feeling and consciousness—all this is so wonderful, and altogether out of the range of ordinary phenomena, that we scarcely wonder that, by some, it should be attributed to Satanic agency; the more especially when we step forward into the deeper mysteries of *Clairvoyance*, with its pretended insight into things past, present, and future; its intuitive knowledge of all hidden secrets; its ability to read a closed book, as well as an open one, and to understand the thoughts of the heart before they are expressed. All this, we are told, the *clairvoyante* is able to do, and yet we find that he cannot answer some simple question propounded to him while in this peculiar Mesmeric state.

As a remedial agent, then, we cannot conscientiously recommend Mesmerism; it may be of service in some neuralgic cases, those in which every remedy having failed, it may be desirable to give the patient another chance—a kind of peg to hang a hope on.

Among the theories which have been propounded to account for the effects produced by Mesmerism, two only merit notice. The first is that of Mesmer and his immediate followers, who attributed the phenomenon to the action of a subtle fluid in the bodies of animals, which enables them to exercise an influence on each other at a distance, just as a magnet affects iron; hence the name Animal Magnetism. This hypothesis, of a nervous fluid, susceptible of being influenced, and producing an influence more or less modified, was adopted by most writers on Mesmerism, until Mr. Braid, by a series of experiments, convinced himself and others that the Mesmeric state may be produced without any influence from a second person, but by simply directing the attention, by means of the eyesight, to some particular object, and keeping it there for a time. The state of trance, as it were, so produced, Mr. Braid called *Hypnotism*, and he accounts for the phenomenon by supposing that “there is a derangement of the cerebro-spinal centres, and of the circulating respiratory and muscular systems, induced by a fixed state; absolute repose of body, fixed attention, and suppressed respiration, concomitant with that fixity of attention.” He further adds, that he believes that in all cases “the whole depended on the physical condition of the patient, arising from the causes referred

to, and not at all on the volition or passes of the operator throwing out a magnetic fluid, or exciting into activity some mystical universal fluid or medium.” These are the two theories by which the phenomenon has been accounted for: our readers may take which of them they please. For ourselves we are more inclined to the second than the first, although neither of them are to our minds quite satisfactory. In simple electricity we have known laws to guide us; Electro-magnetism and Galvanism we can pretty well understand; although with respect to the exact nature of these there is yet much to be learned; but here we are quite in the dark, with only the glimmering light of hypothesis, like a Will-o'-the-wisp, before us. Before Animal Magnetism can take its place as a true science, we must ascertain its nature, define its powers, and be able to calculate with some degree of certainty, not only how it will act in certain cases, but why it does so act: until we can do this we cannot safely employ it in the treatment of diseases. For subjects cognate with this, see *Electricity, Galvanism*.

MAGNUS MORBUS, Latin for the Great Sickness or disease; a term applied by Hippocrates to *Epilepsy* (which see).

MAIZE, or *Indian Corn*, scientific name *Zea Mays*, belonging to the natural order



*Gramineæ*, or Grasses. This is no less a staple article of food, than rice to the inhabitants of warm countries, and is far more nutritious than that grain. From whatever quarter of the globe it originally came, and this is a doubtful point, it has certainly been cultivated from a very early period

both in the old and the new world; it was, no doubt, the corn mentioned in Scripture, and its cultivation at the present day is more widely extended than that of any other grain used as food, for which purpose it is admirably adapted, being very nutritious. According to analysis, it consists of 77 per cent. of Starch; 3 of a principle analogous to Gluten, called *Zein*; 2.5 of Albumen; 1.45 of Sugar; 0.8 of extractive matter; 1.75 of Gum; 1.5 of Sulphate and Phosphate of Lime; 3 of Lignin; and 9 of Water. In North America it is the chief article of diet, and most of the flour which we get from thence is Maize flour. In that country they eat the green ears roasted or boiled, under the name of "hot corn." They separate the starch and use it for domestic purposes, exporting it largely to this country, under the name of Oswego Arrow-root; it is wholesome and nutritious, and makes excellent puddings, custards, &c. When Maize first came into this country we called it "Turkey Corn;" it has never become properly acclimatized so as to become an agricultural crop, although some has ripened under favourable circumstances.

**MAL** (Latin *malus*, evil), hence we have *Mal de la Rosa*, the name given by Thierry to scarlatina, or scarlet fever; *Mal de Siam*, a name given in some parts of India to yellow fever; *Mal del Sole*, a name of the Italian elephantiasis, so called because it is popularly ascribed to the heat of the sun's rays; *Mal des Ardens*, one of the designations of a disease which prevailed greatly in the dark ages, as a sequel to war and pestilence. It is placed by Sauvages under the head of *Erysipelas Pestilens*, and by Sagar under that of *Necrosis*; it has also been called *Kriebel Krankheit*. See these heads.

**MALA** (Latin for the cheek); adjective *malar*.

**MALACIA** (Greek *malakai*, softness). Depraved appetite; or a desire for particular kinds of food, so strong as to lead to a disgust of all other kinds: this is sometimes called *Pica*, *Mal d'estomac*, or dirt-eating. See *Appetite*, *Depraved*.

**MALACHITE**, or Green Bice, is a native copper ore, being a hydro-carbonate of the peroxide of *Copper* (which see).

**MALAGMA** (Greek *malaygo*, to soften). A term synonymous with cataplasms and other applications which have a softening property.

**MALACOSTEIN** (same root as above). Applied to softness of a bone (in Latin *Mollites ossium*).

**MALARIA** (Latin for bad air). A term applied to the unwholesome effluvia which generally arises from marshy or swampy

ground, giving rise to what is called with us marsh fever; in India, jungle fever is the name. To emanations of this kind may generally be ascribed ague and other forms of intermittent fevers, one of which prevails about the Pontine marshes near Rome, and is the *Malaria Campagna*.

**MALFORMATION**. Bad shape or form; a deviation from the natural form of a part or organ; it may be *defective* when an organ is entirely deficient, as the heart, &c., in *acardia*; *irregular*, as in the misplacement &c., of parts in the heart, constituting the *qualitative* malformation of Meckle; *superfluous*, when consisting of excessive development of an organ, as in the case of supernumary auricles, &c.

Malformations in newly-born children are so various as almost to defy enumeration; among the most common may be mentioned an imperfect closing of the lower part of the spinal canal, which may be known by the presence of a soft yielding mass like a bag of fluid there; surgeons call this *Spina bifida*; there is also an imperforate condition of the passages, which may be suspected when the meconium and water are not passed from the womb of the mother soon after birth, in this case an examination of the child by the medical man should at once be instituted; then there are deformities in the limbs, such as *Club-feet*, absence of fingers and toes, *Hare-lip*, &c., all of which are at once evident to the eye, and most of which admit of no remedial measures at the time, if they do at all. See those heads.

**MALIC ACID**. This is an acid obtained from apples and some other fruits; it is said to be identical with *sorbic acid*; its salts are called *Malates*. When heated in a close vessel it is decomposed and forms a new acid called *Pyro-malic*. The Malic acid is that which imparts so pleasant a flavour to apples.

**MALIGNANT** (Latin *mal*, bad). A term applied to diseases when they assume a severe and intractable form, so as to render it likely that they will terminate fatally. Among the malignant diseases of this country may be reckoned typhus fever, cholera, cynanche, and the new form of throat disease, *Diphtheria*.

**MALIS**. The name of a cutaneous disease produced by parasitic worms, which were formerly called *dodders*. In old medical works we find these different names given to the different varieties of this skin affection; *M. pediculi*, or lousiness; *M. pulicis*, or flea-bite; *M. acari*, or tick-bite; *M. filariae*, Guinea worm; *M. aëstri*, gad fly-bite; *M. gordii*, hair worm.



**MALLEOLUS** (Latin, diminutive of *Malleus* a mallet). The ankle, so called from its resemblance in shape to a mallet; there is an outer and an inner Malleolus. See *Ankle*.

**MALLEUS**. Latin for a hammer. One of the *ossicula auditus*, or small bones of the *Ear*, (which see). From the same root we have also *Malleatio*, a form of chorea, consisting of a convulsive action of one or both hands, which rise and fall like a hammer; also *Malleolar*, a term applied to two branches of the posterior tibial artery. See *Leg*.

**MALLOW**. This plant which is so commonly found in the English fields and hedges, and which botanists distinguish by the name *Malva Sylvestris*, belongs to the natural order *Malvaceæ*; it contains a considerable quantity of mucilage, which it yields readily to water; it is, therefore, valued for its demulcent and emollient properties, and is, like the Marsh Mallow, sometimes employed medicinally. For a more full account of these two plants, and representations of them, see *Althæa*.

**MALT**. The designation of grain, more particularly barley, which has become sweet by the conversion of the sugar into starch. It comes not within our province to describe the process by which this change is effected in the constituent elements of the grain. The chief use of Malt is in distilling *Spirit*, and brewing *Ale* and *Beer* (which see). It is also converted into Wine and Vinegar, and is occasionally employed to make an alterative analeptic infusion; it is mucilaginous, demulcent and nutritious, and has sometimes proved beneficial to consumptive patients.

**MALUM PILARIS** (Latin *pilas* a hair). A complaint arising from the irritation caused by hairs sticking to the skin—generally, on the backs of infants, producing incessant itching, and sometimes raising small tumours; it is sometimes called *Crinones*.

**MAMMA**. Latin for the breast; plural, *Mammæ*; the organs which furnish the milk; hence all creatures which suckle their young are called *Mammalia*, and the glands which secrete the lacteal fluid, in women, are called the *Mammary* glands: they are situated within the adipose tissue, or fatty substance of the *Breast*, (which see).

**MAMA-PIAN**. The term applied in Africa to the master fungus, or Mother-yaw, supposed to be the source of all the other tumours of *Frambæsia* (which see).

**MAMILLA**. The diminutive of *Mamma*, meaning literally a little breast, is the

name given to the conical prominences in the structure of the kidney, from the points of which the urine oozes out; they are sometimes called *papillæ*, which has the same meaning. *Mamillary* is applied to an eminence of the inferior vermiform process of the *Cerebellum* (which see), and *Brain*.

**MANCHINEAL**. The *Hippomane Mancinella* of botanists, belonging to the natural order *Euphorbiaceæ*, a tree growing in the



West Indies, South America, and Arabia, every part of which is highly poisonous, so much so that persons are said to have died from merely sleeping under its branches. This, however, is probably an exaggeration. All the parts of the tree, even the green fruit, are full of a milky juice, which is acrid and corrosive, and with this the natives poison their arrows: if the odour of it, which resembles wormwood and tansy, is inhaled, it causes a pricking sensation all over the person, and sense of constriction at the throat. The ripe fruit is about the size of a small apple, from the Spanish name of which, *Maneïnella*, the tree derives its name. This fruit has an agreeable odour, and at first an insipid taste; but after eating it, there is a burning in the mouth, and inflammation in the intestines. Dried and powdered, it is said to be a good diuretic, and the seeds, to the number of ten or twelve, are violently so, as is also a gum-resin, similar to guaiacum, which the tree produces, and which is sometimes given for dropsies.

**MANDRAKE**. The *Mandragora Officinale* of botanists, belonging to the natural order *Solanaceæ*. This is a plant to whose root strange superstitions have been attached from a very early period. The old magi-

cians used it in their incantations, and affirmed that it grew in the form of a human being, and uttered a shriek when pulled from the earth. It possesses narcotic properties, but one or two of the berries may be



eaten without inconvenience. The poets, both ancient and modern, constantly allude to this plant; thus Shakspeare we may remember, makes Cleopatra say—

"Give me to drink *Mandragora*, that I  
May sleep out this great gap of time."

**MANGANESE.** Sometimes called *Sarin de verre*, or soap glass. This is a native metal, resembling iron in some respects; but it is so alkaline that it speedily oxidizes in air. It is found mostly as the grey oxide, but the black oxide is common also, either as a sulphate, a phosphate, or a silicate. The black bin, or peroxide, is the form most generally used by chemists, and sometimes by medical practitioners. For scabies and syphilis, it is given internally, in doses of from 3 to 20 grains; in the former disease, and in some cutaneous maladies, it is also applied in the form of Ointment. The salts of this metal are believed by some to be equal to those of iron, for their tonic properties; hence the Acetate, the Carbonate, and the Sulphate, are used medicinally: the first as an alterative, in doses of 5 to 10 grains; the second, for the same diseases, and in the same doses as the Binoxide; and the last as an alterative simply, in doses of 5 to 10 grains; as a purge and cholagogue, dose from 1 to 2 drachms. There are preparations of Manganese with the Sulphates and Carbonates of Iron, in which the properties of the two metals are combined. The Chloride, Iodide, Malate, and Tartrate of Manganese are also sometimes given, in

the form of Pills, in scrofula, anæmia, and various skin diseases.

A combination of the Black Oxide, Salt and Sulphuric Acid, makes a good mixture for the evolution of chlorine, as a *Disinfectant* (which see).

**MANGEL, OR MANGOLD WURTZEL.** The kind of Beet-root which is most largely cultivated for the feeding of cattle, and the manufacture of sugar. See *Beet*.

**MANIA.** (Greek for madness.) This is insanity, or disordered intellect. Sauvages makes a classification of such cases under the heads of *Vesania* or as *Hallucinations*, denoting erroneous impressions of the understanding; and *Morositates*, or *Morbi pathetici*, consisting of depraved appetites, and other morbid changes of the feelings and propensities. Then we have *Monomania*, from the Greek *monos*, alone, that is, insanity upon one particular subject, the faculties being unaffected upon every other; *Dementia*, which is incoherence, or true chaotic madness, embracing the first stage of fatuity; and *Amentia*, which is its last stage, being an almost total obliteration of the faculties; this is sometimes called *Demonomania*. See *Insanity*, *Lunacy*, *Madness*.

**MANNA.** A term derived from a Chaldaic root, signifying What is it? referring to the miraculous food by which God supported the Children of Israel in the Wilderness; with regard to which we may still ask the above question, for certainly no article which we now call Manna could have been the substance which bore the name of old. The sweet concrete juice which now goes by the name is produced by several plants, but chiefly the *Ornus*, or *Fraxinus*, *Europæa*, and *O. or F. Rotundifolia*. (For cut of the first see *Fraxinus*).

This juice exudes spontaneously, but is generally obtained by making incisions in the tree; the best kind is called flake Manna (*M. canulatâ*). Manna is referred to in old medical works under various names—such as *M. calabrina*, *Ros calabrinus*, *Aceromel Alusar*, *Drysomel*, or Oak Honey, *Mel ærium*, or Aerial Honey, Nuba, &c. It has a sweet and slightly bitter taste, and acts as a gentle laxative; its purging property being due to the presence of a peculiar unfermentable sugar called *Mannate*, which may be extracted from it by boiling alcohol. In disorders of weakly women, and the affections of children, both Manna and Mannate are useful; having no unpleasant taste they may be conveniently mixed with the food; the dose of the former is, for children, 1 to 2 drachms; for adults, 1 to 2 ounces:



of Mannate, about half the quantity will be sufficient.

*Manna Brigantina*, or Brianceon Manna, is the concrete juice of the *Pinus Larix*, or *Larch* (which see).

**MARANTA.** *Arrowroot.* That which is sold under this name in the shops, is a form of starch procured from the rootstocks of various species of plants belonging to the family *Marantaceæ*. There are three kinds of arrowroot known in the shops, the West Indian and the East Indian arrowroots, and *Tous les Mois*. The West Indian is the produce of a species of *Maranta*, called *M. Arundinacea*. The East Indian is pro-



duced by another species, the *M. Indica*, and *Tous les Mois* is obtained from the *Canna Edulis*.

Although arrow-root, sago, tapioca, and potato starch are all composed of the same constituent, their flavour is very different; hence the preference given to arrow-root as an article of diet. This flavour depends on some peculiar principle which is produced in the plant from which the starch is obtained, and by very careful preparing can be entirely got rid of. Arrow-root is used for making cakes, puddings, and a thick gelatinous fluid in great request in the sick room. It is a property of starch to combine with water at a temperature of  $180^{\circ}$ , and form a gelatinous compound. This property renders it very useful in cookery, and seems to increase the digestibility of the starch itself.

Arrow-root is frequently regarded as very *nutritious*; but if what we have stated

above is correct, it will be seen that it is not nutritious in the proper sense of the word. Those foods can alone be called nutritious that contribute to the building up of the fabric of the body, by adding those materials to the tissues which are being constantly removed by the wear of the body. Now starch does not perform this function, and is entirely consumed in the body in maintaining its animal heat. Arrow-root, however, and the other forms of starch, are frequently mixed with nutritious matters, such as milk and bread; and in this way the food into which they enter becomes nutritious.

Still, it may be said that children become fat when fed on Arrow-root; and this is an undoubted fact. The explanation is, however, easy. When the carbonaceous substances are taken into the system in larger quantities than can be consumed in maintaining animal heat, they are changed in their characters, and become converted into oil, which being deposited in the tissues, produces fat. This oil is not a living part of the body; and a person may get fat even without having his frame nourished, or his strength increased. This is an important fact to bear in mind, as many persons get fat upon certain kinds of diet, without getting any stronger, or more able to perform the functions of the body.

Although to be considered rather as a delicacy than a medicinal article, yet Arrow-root undoubtedly has some claims to our notice in the latter respect; its emollient properties rendering it valuable in disease of digestive organs. When given to invalids suffering from diarrhoea, a little Tincture of Catechu or of Rhatany may be added to it, or if not this, a piece or two of Cinnamon should be boiled in the milk with which it is prepared. As a food for children, a tablespoonful, added to a pint of boiling milk or water, will make a stiff and nutritious jelly; the powder must be first rubbed down with a little of the cold fluid in a basin; the rest, when in a boiling state, added to this, gradually stirring the whole; then pour the whole back into the saucepan, and let it remain on the fire for about five minutes, taking care to keep stirring the whole time it is thickening, or there will be lumps: the addition of a little Loaf Sugar, Grated Nutmeg, and Lemon Juice, and, for adults, a glass of Sherry Wine, makes this very agreeable to the palate. In the same way Arrowroot may be added to Beef Tea, to increase its nutritive qualities; Blanche-mange and Puddings may also be made of Arrowroot. For receipts, see "Wife's Own Book of Cookery."

**MARASMUS** (Greek *marasno*, to wither). This term, which signifies wasting of the body, was formerly a general term for *Atrophy*, *Tubies*, *Phthisis*, or any disease which resulted in *Emaciation* (which see), and other of the above heads.

**MARCORES** (Latin *marcor*, from *marceo*, to become lean). General emaciation. Much the same meaning as the last.

**MARGARIC ACID** (Greek *margaros*, a pearl). This is an acid procured from soap, sometimes called *Margarine*; it is composed of lard and potash, and obtained the above name from its pearly appearance; its salts are called *Margarates*; a principle discovered by Chevrul in spermaeti has been termed *Margarine*.

**MARINE ACID** (Latin, *mare* the sea). The Muratic, or Hydrochloric Acid, procured from Common Salt by distilling it with Sulphuric Acid and water over a water bath, was formerly so called: a common name for it is Spirit of Salt. See *Acids*.

**MARJORAM**. The *Originn Vulgare* of botanists, of the natural order *Labiata*, is a common wayside plant with us; it has some sudorific, emmenagogue, stomachic and antispasmodic properties; it yields, by distillation, a volatile oil, called Oil of Marjoram or *Originum*, which is stimulant and carminative; the dose of this is from 5 to 10 minims; it may be taken on Lump Sugar; the dose of the Infusion of the plant is from 1 ounce to an ounce-and-a-half; the Oil is often used as an ingredient in liniments for sprains, &c.



**MARMALADE**. A preserve made of Apples, Lemons, Quinces, Oranges, &c.; that made of the Seville Orange is the most wholesome, having a stomachic and slightly tonic pro-

perty; persons who are dyspeptic, or bilious, will do well to take this on bread instead of butter; it may be purchased at a cheap rate of every confectioner, or prepared by boiling the fruit and sugar together for about an hour, stirring frequently; the proportion is about 1-third of the first to 2-thirds of the last; the Oranges should be cut into thin slices, and have the pips taken out, but the peel left on them.

**MARRIAGE**. This religious and lawful union of the sexes is one on which it is desirable we should make a few remarks. That the married state is one which, in both male and female, conduces most to health, various observations tend to prove; thus it has been ascertained, as the result of careful statistic inquiry, that married women at the age of 25 have, on the average, 36 years of life before them; while unmarried women of the same age have not, on the average, more than between 30 and 31 years. Again, in men the mortality between the ages of 25 and 45 averages 18 per cent. in the married, but 27 per cent., or one-third more, in the unmarried. Much of this excess is probably due to the indulgence in excesses, unsettled life, and want of home comforts, which single men especially suffer from; but this does not militate against the value of the argument in favour of the married state, which is, undoubtedly, the one intended by God for man, and best suited to his nature. We would not, therefore, argue in favour of *early* Marriages, for it is undoubtedly a great evil, both morally and physically, for parties to become thus united, at an age when little or no preparation can have been made for the cares, duties, and responsibilities which they incur. Any female, who commences child bearing before the age of two or three and twenty, will be sure to suffer in her own constitution, and she will most probably entail debility on her offspring. Neither should entrance into the married state be too long delayed, or there may be difficulties in the way of conception, parturition, and lactation, one or all which will seriously interfere with the health and happiness of both husband and wife, and perhaps render futile all hopes of a family. From 21 to 26 or 28 is the most eligible age for marrying in women; but the nearer to the former age the better; the man may be 2 or 3, or even 5 or 6 years older, without any detriment to the prospects of the union; of course the advisability of marrying at all must depend upon the relative positions and means, temperament, and tempers of the parties



themselves; these are circumstances into which we cannot enter.

Statistical returns show that suicide is most frequent among single persons; and this we might expect, for however great may be the distress in the families of the poor, yet the father and mother in this case have ties which bind them to the earth, and their weight of troubles is lightened by being shared. They may enjoy those pleasures too, which it is natural for both men and women to long for, without plunging into crime, and loading their souls with remorse, or contracting diseases which frequently make life a misery and a burden.

On the score of physical and mental development, it has been clearly established that a mixture of different races is most conducive to this. There is no doubt that the intermarriages of distinct nations, or at least of families, totally unconnected with each other, tends greatly to elevate the standard of both. It has been contended, by those well qualified to judge, that the energy, enterprise, perseverance, stamina, and high intellect of the Anglo-Saxon people have resulted from the admixture of blood and races consequent on the successive occupation of our country by conquerors of different nations.

In Pope's "Tenth transmitter of a foolish race," we have a picture of the dwarfed intellect, and impaired physical powers, resulting from intermarriages through many generations among family connections; such should be avoided as much as possible. Another very important consideration connected with this subject of Marriage, is that of hereditary tendencies to physical or mental diseases, of this we have already spoken, under the head *Hereditary*, and therefore need only call the attention of our readers to it here.

**MARROW.** The animal fat which is found in the cavities of long bones. As an article of diet, it possesses the same nutritive properties as fats generally. It enters into the composition of several toilet articles, such as pomade, &c., for which it is particularly adapted.

**MARRUBIUM VULGARE.** The scientific name of the common *Horehound* (which see).

**MARS** (Latin *martis*). The mythological and alchemical name of iron, whose salts were formerly called Martial salts, and the protoxide *Martial Ethiops*. See *Iron*.

**MARSUPIALIS** (Latin *marsupium*, a pouch). The former name of a muscle in the thigh, now called the *obturator internus*.

**MARUM SYRIACUM** (or *Teucrium marum*).

The Syrian herb, *Mastich*; a bitter aromatic plant, smelling like ammonia, which has been used as an emetic, and said to be efficacious in nasal polypi.

**MASS** (Greek *massomai*, to knead together). A term commonly applied to the substance of pills before division: it is also synonymous with quantity; thus the mass of a body is the quantity it contains.

**MASSA CARNEA.** The *flexor accessorius* muscle, which lies in the sole of the foot, in a small mass of flesh, which is the meaning of the above Latin term; it is connected with the *flexor longus* (see *Foot*), and is sometimes called *Plantar pedis*.

**MASSETOR** (Greek *massaiomai*, to chew). A muscle which assists in effecting the movement of the jaw, necessary in chewing. Hence we have *Masseteric*, applied to a branch of the inferior maxillary nerves, and to veins, &c., belonging to the *Jaw* (which see.)

**MASSICOT.** Yellow Oxide of Lead. When partially fused by heat, it is called *Litharge*, (which see) also *Lead*.

**MASTIC** or **MASTICH.** The resinous gum of the *Pistachia Lentiscus*, a tree which grows in the countries bordering on the Mediterranean, and belongs to the natural order *Terebinthaceae*. Besides being employed in



the manufacture of varnish, it is used as a masticatory in tooth affections; it forms an ingredient in stimulating tinctures applied to the mouth and gums, such as the Compound Tincture of Ammoniacum. The substance which remains on dissolving Mastic in alcohol is termed *Masticin*.

**MASTICATION** (Latin *masticare*, to chew). This is the act by which food is reduced to

a proper state for swallowing; it is commonly very imperfectly performed, and hence we have so many troublesome cases of indigestion, and disorder of the bowels, into which the aliment passes in too crude a state. During the process of mastication the food becomes mixed with saliva, and thus reduced to a proper consistence: to "bolt it," as many do, in large lumps, is not giving fair play to the digestive organs, and we need not wonder that they often rebel, and refuse to perform their work. Perhaps the greatest advantage of artificial teeth is, that they enable the wearer to chew his food properly, and we doubt not that a life is often prolonged by the ability to do this.

**MASTICATORIES** are substances which on being chewed promote a flow of saliva by stimulating the excretory ducts; they are of an acrid or hot nature, and are sometimes called *Sialogogues* (which see).

**MASTODYNIA** (Greek *mastos*, the breast and *odyne* pain). Pain in the breasts in women, common in hysteria, and also attendant on *Lactation* (which see).

**MASTOID** (Greek *mastos*, and *oidos* likeness). Shaped like the breast or nipple; a term applied to a process, and foramen of the temporal bone. See *Head*.

**MATERIA MEDICA**, Latin for Medical Materials. Applied to that branch of the healing art which relates to the nature and operations of medicines: these remedial agents may be divided into, 1st *Natural*, or those which are found ready prepared by nature; they may be either simple or compound, organic or inorganic, the former belonging to the animal or vegetable kingdom, the latter to the mineral: 2nd, *Artificial*, or those which have been modified by addition or subtraction of some of their parts; these are called Pharmaceutical preparations, and belong to the department of chemistry.

Dr. Cullen arranges all substances into two great divisions, 1st, *Nutrients*, which he subdivides into fruits, oleraceous herbs, roots, seeds, and nuts: 2nd, *Medicines*, which are classed according as they act upon *solids*, either simply as astringents, emollients, &c., or by producing an effect upon the living body: or on *fluids*, either by changing their fluidity, as attenuants and inspissants, &c., or by modifying their chemical composition, as demulcents, anti-acids, &c., or by evacuation, as emetics, cathartics, diuretics, &c.

Dr. Murray arranges the *Materia Medica* into four divisions—1st, *General Stimulants*, which are diffusible, as narcotics and

antispasmodics; or permanent, as tonics and astringents: 2nd, *Local Stimulants*, such as emetics, cathartics, expectorants, &c.: 3rd, *Chemical Remedies*, such as refrigerants, escharotics, &c.: 4th, *Mechanical Remedies*, such as anthelmintics, demulcents, &c.

Dr. A. Thompson takes as his three principal divisions, *Animal*, *Vegetable*, and *Chemical* agents. Into the particulars of the various subdivisions we need not enter, enough having been stated on this head for all present purposes. See *Medicines*.

**MATICO**. A name applied to the leaves of the *Arbanthe Elongata*, a plant of the pepper tribe, a native of South America, which has been recently introduced in English medical practice as an astringent styptic. It is recommended in chronic



dysentery and diarrhoea, given in the form of Infusion of the leaves, the under sides of which, or the powder, applied to obstinate leech bites, cuts, or bleeding surfaces, will, it is said, arrest the flow of blood. The Tincture, mixed with water, forms a good astringent lotion for the mouth. The dose of the Powder is from 10 to 30 grains; of the Infusion, prepared by pouring a pint of boiling Water on 1 ounce of bruised Leaves, 1 ounce; it may be taken three or four times a day; the Tincture is made with 2 ounces of bruised Leaves to a pint of proof Spirit; the dose of this is from 1 to 2 drachms.

**MATLOCK**. The waters of this small Derbyshire town pleasantly situated amid woody slopes and limestone rocks, on the river Derwent, contain no amount of saline ingredients sufficient to produce any physiological effects, and seem to have no action except as diluents; as such they may be recommended in cases where there is a



hereditary tendency to gravel; they have a temperature of about 68°, and are slightly impregnated with carbonic acid. See *Waters, Mineral*.

**MATRASS.** A vessel of glass, earthenware, or metal, usually of a globular shape, and open at the top, used for the purposes of digestion, evaporation, &c. A similar meaning is attached to *Alembic, Cucurbit*.

**MATRICARIA** (Latin, *matrice*). Medicines good in disorders of the uterus; the term is also applied to a genus of plants, some of which produce these medicines.

**MATRIS** (plural of *mater*, a mother). A name given to the membranes of the *Brain*, (which see), and *Dura Mater*.

**MATRIX.** The earthy or stony matter which accompanies and envelopes ores in the earth; it is also applied to the mould, in which a cast is made.

**MATTER** (Latin *materia*). The term generally used to denote any substances; they may be *Physical*, embracing the phenomena of the science of natural philosophy; or *Chemical*, illustrating the operations of affinity, combination, decomposition, &c., all which properly belong to the science of *Chemistry*.

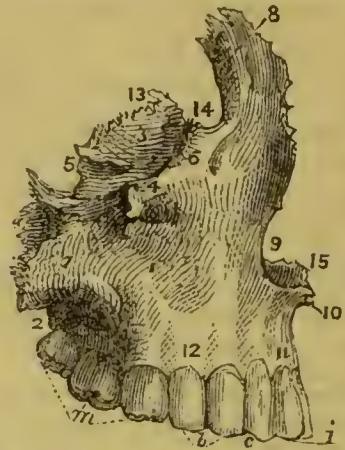
The term matter is also applied to the thick purulent substance collected in a boil, or *Abscess* (which see).

**MATURATION** (Latin *maturo*, to ripen). The process which follows inflammation, by which pus is formed in an abscess or other inflammatory swelling. Applications, such as warm poultices, which promote suppuration, are sometimes called *Maturants*.

**MAW-WORM.** The *Ascaris vermicularis* one of the intestinal worms, whose common name is derived, according to Dr. Harvey, from the occasional visit which the animal makes in migrating from its proper region, the rectum, to the maw or stomach; more probably, however, the peculiar effects which it produces are the result of sympathy, the gnawing pain and faintness being caused by the intolerable itching which it excites in the anus. See *Worms*.

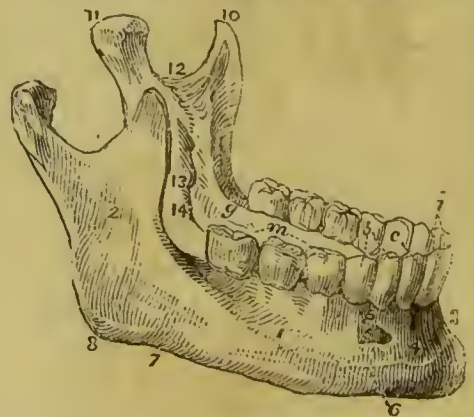
**MAXILLA.** The jaw; hence we have the term *Maxillary*, the designation of nerves, &c., belonging to the jaw. The upper, or, as they are generally called, the superior Maxillary bones, are the largest bones in the face, with the exception of the inferior Maxillary or lower jawbone; they form, by their union, the whole of the upper jaw, and assist in the construction of the nose, orbit, cheek, and palate. We give here a cut, exhibiting the right side of the superior Maxillary, as seen in its lateral aspect; 1 is the external or facial surface, the cavity in

which the cypher is placed is the canine fossa; 2 is the posterior or zygomatic surface; 3 the superior or orbital surface; situated immediately below the cypher is the infra-orbital foramen, 4; and leading to it is the infra-orbital canal, 5; the inferior border of the orbit is marked by 6; and the



malar and nasal processes by 7 and 8; while 9 is the concavity forming the lateral boundary of the anterior nares; 10 is the nasal spine; 11 the incisive or myrtiform fossa; 12 the alveolar process, 13 the interior border of the orbital surface, which articulates with the ethmoid and palate bones; 14 is the concavity which articulates with the lacrimal bone, and forms the commencement of the nasal duct; 15 is the crista nasalis of the palate process; *i* marks the two inferior teeth; *c* canine; *b* the two bicuspids; *m* the three molars.

Our next cut represents the lower jaw, or inferior Maxillary, which is divisible into a



horizontal portion or body (1), and a perpendicular portion or ramus; 2, the symphysis; 3, indicates the point of conjunction between

the two lateral halves of the bone in the young subject; immediately external to this ridge is a depression in which originates the *depressor labii inferioris* muscle; 4, the mental foramen is marked by 5, this is an oblique opening for the exit of the mental nerve and inferior dental artery; 6 is an external oblique ridge, which runs upward, and outward to the base of the coronoid process, and gives attachment to several muscles; 7 is the groove for the facial artery, the situation of which is marked by a notch on the bone, a little in front of the ciphers; 8 is the angle, and 9 the extremity of the mylo-hyoidean ridge, which gives attachment to several muscles; 10 is the coronoid process; 11 the condyle; 12 the sigmoid notch; 13 the inferior dental foramen; 14 the mylo-hyoidean groove; 15 the alveolar process; *z* marks the middle and lateral incisor tooth of one side; *c* canine tooth; *b* two bicuspids; *m* three molars.

The muscles of the jaws, as might be supposed from the work they have to do, are strong and numerous; the action of the lower jaw is effected by the attachment of 14 pairs, and of the upper by that of 10 muscles; many nerves, arteries, and veins are also connected with them, of which it would be useless for us to attempt a description. The jaws are liable to *Fracture* and *Dislocation*, (both of which heads see,) and also to some painful affections, especially of the nerves. See *Neuralgia*, *Tic Doloroux*, *Teeth*.

**MAY APPLE.** This is the *Podophyllum*



*Peltatum* of botanists, called by the Americans the Wild Lemon. It belongs to the Crow-

foot family, natural order *Ranunculaceæ*; it is said to be poisonous, but the fruit, which has a subacid, sweetish taste, may be eaten with impunity; the root is a certain and active cathartic, resembling jalap in its operation, but rather slower, and perhaps more drastic. It is much used in America, combined with Calomel, in bilious fevers, and congestion of the liver.

**MAXIMUM** (Latin, superlative of *magnus*, great). A term which denotes the greatest possible quantity or effect; thus we say a Maximum dose of any remedy, the Maximum height of a fever or other disease. The term is opposed to *minimum* or the least possible; between the two lies the *medium*, the mean or middle.

**MEAD, or METHUEGLIN.** This was the favourite beverage of the ancient Scandinavian nations, it was made of honey and water, boiled and fermented; in old medical works it is sometimes called *Hydromel vinosum*. Mead is by no means banished from the list of modern beverages, although only old-fashioned people now make or take it. One mode of preparation is as follows:—To a gallon of Water add 2 pounds of Honey, and 1 pound of Sugar, let it boil for an hour, then add the whites of 4 Eggs to raise the scum, which skim off as it rises; when quite clear pour it into an open vessel, and let it stand for a week, adding a toast dipped in Honey to make it work; put in also the peel of 3 or 4 Lemons; let it stand for a month, and then, if it is not sufficiently fine, put in more Honey and let it stand until it is, then bottle it for use. Some who prefer Mead with an aromatic flavour, add Cinnamon, Cloves, Cardamoms, or Fragrant herbs, according to taste; thus we have Cowslip Mead, Frontinac Mead, Sack Mead, &c. These beverages are pleasant to many, and are not unwholesome.

**MEAL.** The edible part of barley, oats, rye, wheat, or other grain. See *Farina*.

**MEALS.** The tendency of the present age is towards late Meals; and especially is this the case with the higher classes of society: the morning Meal of our ancestors, like that of the ancient Greeks, was taken very early, commonly soon after sunrise; with us it is more commonly getting towards noon before the fast is broken, but this is with people who lie late abed. Those who are astir in good time feel the want of food, and generally take it by 7 or 8 o'clock; the latter is a very fit time for breakfast, before which Meal no great amount of exercise should be taken, unless the stomach be stayed, as it is termed, with a biscuit, or some light refreshment of the kind. It is never desirable



for invalids to make this first meal of the day a very hearty one, although those in good health, who take plenty of exercise, may do so with impunity, if not with advantage. It is a fallacious, although a very prevalent notion, that the powers of the body are the most vigorous at rising from rest; they are, doubtless, refreshed and recruited, but they have not yet come into full operation, and no weakly person can safely venture to tax them much until food is taken, and with it some gentle stimulus like Tea or Coffee. It speaks well for the health of any person if he can take a hearty breakfast and go about his ordinary occupation without pain or inconvenience; those who are not hearty and vigorous, even if they have an appetite for a full Meal, will suffer for want of the nervous power which would enable them to digest it comfortably; to such, therefore, and especially if they have active duties to perform, a light breakfast is best. With dyspeptic patients almost any solid food at the morning Meal will be likely to disagree; such will generally find it beneficial to have a small cup of hot Tea or Coffee brought to them just before rising, and then take their breakfast about an hour after, with only gentle exercise between. Grown persons generally require a stimulus at breakfast, such as Tea or Coffee, but for children Bread and Milk is best; or, if they are strong and hearty, Oatmeal Porridge, the common morning diet in Scotland and our northern counties, is the best.

Of Luncheon, we have already spoken under its proper head; it should only be taken when the dinner is late, and always ought to be a light Meal. No time is so good for dinner for working people and children as 12 or 1 o'clock; this is the most substantial Meal of the day, and it should be taken when the bodily powers are in full vigour; after it a little rest is required, especially by those who are at all delicate, although the strong and robust may go on working immediately after dinner without inconvenience; with this Meal, if at any, a little Ale is required, or a glass of Wine, but we do not hold either to be necessary in ordinary cases of good health. Those, whose duties keep them actively employed until four or five o'clock, and terminate then for the day, do well to defer dining until these duties are over, and they can sit down and enjoy the Meal, especially if their occupation requires much head work; for it is well ascertained that active exercise of the mind greatly interferes with the digestive process. Later than six, dinner should never be taken, and during and after this

Meal mental labour should be refrained from as much as possible; it should be followed by cheerful conversation, light reading, music, or something which may divert the mind from the cares and anxieties of business; there can be no objection to a glass or two of wine at this Meal, but far too much is commonly taken, and the dishes are generally too rich and highly seasoned. The practice of having Coffee an hour or two after is a good one as a general rule; it stimulates and assists the digestive organs, and it refreshes the somewhat jaded mind; but it should not be taken too strong, nor too near to bedtime, or it will probably interfere with the night's repose. Some persons are accustomed to sleep an hour or two after dinner; those who are spare and weakly may safely do so, but it is not desirable for those of a full habit of body. The practice of taking bitters, or some alcoholic stimulant before this Meal, is most reprehensible; it is irritating and, in the end, exhausting to the digestion; a draught of cold Water is a much better preparation for the Meal, but only for the strong and vigorous. Persons of weak digestion sometimes take a dinner Pill as an appetizer and stimulant; the practice as a rule is bad, yet there are cases in which it acts beneficially, but as a temporary remedy merely; for such the following form may be recommended:— $\frac{1}{2}$  a drachm each of powdered Rhubarb and Extract of Gentian, 12 grains each of Powdered Capsicums and Carbonate of Soda; mix and make into 24 pills; take one or two half an hour before dinner.

Those who take dinner at about the middle of the day require a supper; but they commonly make this Meal too substantial. If the life is one of active physical exertion, two heavy Meals in the day will probably not be injurious; but those who have not much exercise, do wrong to make the supper a full meat Meal; they may feel no inconvenience from it for a time, but they will, no doubt, do so after awhile. Children should always have a light supper, if any at all, and on no account Ale nor any other stimulating drink with it. If thirsty, Water is the best, or a little Milk and Water, or a little thin Gruel or Porridge. Children should only have meat once a day, at their dinner, unless ordered to take it more frequently by the medical adviser. The routine of their Meals should be something like this:—Breakfast at 8, Dinner at 12 or 1, Tea at 4 or 5, Supper at 7, and bed an hour after. See *Diet, Digestion, Food, &c.*

**MEASLES.** This is a contagious eruption, commonly affecting children, and the same individual but once; it is the first genus of the order *Exanthemata* of Bateman, and in scientific medical works is commonly spoken of as *Rubeola*.

The first *symptoms* of Measles are shivering, succeeded by heat, thirst, and languor; then follows running at the nose, sneezing, cough; the eyes water and become intolerant of light; the pulse quickens, the face swells; there are successive heats and chills, and all the usual signs of catarrhal fever. Sometimes the symptoms are so mild as to be scarcely noticeable, sometimes greatly aggravated; but in any case, at the end of the third day, or a little later, an eruption of a dusky red colour appears, first on the forehead and face, and then gradually over the whole body. In the early stage of this eruption, there is little to characterize it, but after a few hours it assumes the peculiar appearance which once seen can never be mistaken; the little red spots become grouped, as it were, into crescent-shaped patches, which are slightly elevated above the surface, the surrounding skin retaining its natural colour. On the third day of the eruption it begins to fade and disappear, being succeeded by a scurfy disorganisation of the cuticle, which is accompanied by an intolerable itching. The febrile symptoms also abate, and very quickly leave the patient altogether; but often in a very weak state, and with a troublesome cough. Between exposure to the infection and the breaking out of Measles, there is usually an interval of 14 days, which is called the period of incubation; so that it is not uncommon, where there are several children in a family, for the cases to succeed each other at fortnightly intervals.

This disease is often rendered dangerous by complications with others; so that, although not in itself of a fatal character, it frequently leads to fatal results. Where there are the seeds of consumption or scrofula in the constitution, they are likely to be called into activity during the debility which follows an attack of Measles; dropsy often follows it, as do affections of the air passages, chest, and bowels.

*Treatment.* Generally speaking, for simple Measles, little medicine is required; give the patient plenty of diluent drinks; let him have a spare diet, and a moderately warm and well-ventilated room; keep the bowels gently open; if a roasted apple, or a little Manna in the drink will not do this, give a mild saline aperient, something like this:—Ipecacuanha Wine and Sweet Spirits

of Nitre, of each 1 drachm; Tartrate of Potash 4 drachms; Solution of Acetate of Ammonia, 1 ounce; Syrup of Poppies, 2 drachms; Cinnamon or Bhill Water sufficient to make 4 ounces; dose, a table, or dessert spoonful, three or four times a day; should this not be sufficiently powerful, substitute Sulphate of Magnesia for the Potash, and add 4 drachms of Tincture of Senna. Where there is much heat of the skin, sponging with tepid vinegar and water will commonly relieve it, and also the itching. When the eruption has subsided, and the desquamation of the skin commenced, a tepid bath will materially assist this process, and get rid of the dead cuticle. On the third or fourth day after the subsidence of the eruption, a Powder of Calomel, with Rhubarb, Jalap, or Scammony, according to the habit and strength of the patient, should be given; care should be taken to protect the patient against change of weather, and to restore the strength by a nourishing diet. Attention should be paid to the cough, and the proper remedies given if required.

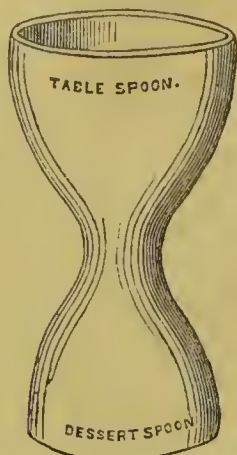
Sometimes the eruption of Measles disappears suddenly, then there is cause for alarm; the patient should be directly put into a warm bath, and have warm diluent drinks; if the pulse sinks rapidly, and there is great prostration of strength, administer Wine Whey and the following draughts:—10 drops of Aromatic Spirits of Ammonia, or 5 grains of the Sesqui-carbonate in  $\frac{1}{2}$  an ounce of Camphor Mixture, with a drop of Laudauum, every four hours; should the prostration be very great, weak Brandy and Water may be given. The state of the chest, head, and bowels, should be closely watched, for some time after the patient is convalescent, as disorders of these organs are very likely to occur; in which case it is probable that there may be *Pneumonia*, *Hydrocephalus*, or *Diarrhoea* (all of which see).

*Malignant Measles.* Is a variety which commences with the above symptoms in an aggravated form; the rash quickly assumes a livid hue, alternately reviving and disappearing, and is mixed up with dark red spots like flea-bites; in this form of the disease we have extreme debility, and all the symptoms of putrid fever, like which it should be treated. No time should be lost in procuring medical aid.

**MEASURES.** A description of those used in the preparation and administration of medicines, is given under the head of *Apothecaries*. Besides the measures of capacity there figured, we would here mention and recommend one made of porcelain, which has been recently introduced, and



will be found useful for domestic purposes. A glance at the accompanying diagram will



explain its nature; it is a kind of double eup, which may be used either side upwards, as required.

**MEAT.** The flesh of the various animals used as food is generally so called. Under the several heads of Beef, Mutton, Pork, Veal, &c., we have spoken of the different kinds in relation to their nutritive qualities, and the best modes of preparation for Food (which see).

**MEATUS.** (*Meo* to pass or flow.) Literally a passage; hence the surgical terms *M. auditorius externus* and *internus*, applied to two passages of the Ear (which see) and *M. urinarius*, the orifice of the female Urethra (which see).

**MECHANICAL THEORY.** A system of medicine now exploded, in which all diseases were treated on the supposition that they were attributable to lentor and morbid viscosity of the blood; diluents or attenuants were therefore chiefly employed, and substances for promoting mechanical force, such as Mercury, which was supposed to act by its specific gravity.

**MECONIUM** (Greek *mekon*, a poppy). The inspissated juice of the poppy, or *Opium* (which see). The term is also applied to the first discharge of feces, of a blackish-green colour, in infants. *Meconic Acid* is a constituent of the poppy juice; its salts are termed *Meconates*. See *Poppy*.

**MEDIAS.** Latin for middle; hence we have the surgical terms *mediana vena*, the middle vein of the arm between the basilic and cephalic. *Mediastinum*, middle portions, or those which separate parts from each other; the term is often used as an adjective, *mediastinal*.

**MEDICINE** (Latin *medico*, to cure). This may signify, either the art of curing diseases; or the substances used in their treatment, for producing certain changes in the animal functions. We have already spoken under the head of *Materia Medica*, of the division of Medicines into different classes, according to their nature or mode of action; it behoves us now to lay down a few simple rules with regard to their administration, and the kinds which are most likely to be serviceable for domestic use. We all know how difficult it is, with children especially, to overcome the disgust occasioned by the nauseous taste of most Medicines; this often amounts to such utter loathing, that the remedy, if it can be swallowed, is rejected by the stomach, and thus cannot prove effective. It is, therefore, desirable to render Medicines as palatable and pleasant as possible, and to administer them at such times, and with such precautions as shall render their retention and action most probable; for adults, who can swallow Pills, this is the easiest and best mode of taking such remedies as will go in a small compass, as the various forms of Mercury, and most of the stronger purgatives will. For children generally they are unsuitable; and Draughts or Powders must be given to them, unless, as is now often the case, Medicated Cakes, or Lozenges, containing the remedies, which their cases require, can be procured.

The best vehicle for children's Powders which contain any preparation of Mercury is Sugar moistened just a little, or Honey, Treacle, or Gum; it must be some thick substance, or the Mercury will fall to the bottom, and so not be taken. Powders with Rhubarb, Magnesia, or any light substance, may be mixed up thin and drank; a piece of Sugar, with a few drops of Essence of Peppermint on it, or a strong Peppermint Lozenge will get rid of the unpleasant taste perhaps sooner than anything else; those who object to this, should chew a piece of dried Orange Peel both before and after swallowing the Medicine. Aperients are best taken on an empty stomach, so are Vermifuges; Tonics should be taken an hour or so before meals, except preparations of Iron, which are best an hour after meals; Mercurials should always be taken at bedtime, unless the case is one which renders it desirable that an active remedy should be instantly applied. Emetics are commonly directed to be taken in the evening, because, after their operation, the patient may rest awhile. Stimulants, of course, may be taken at any time when required; opiates always at bedtime, that

their action may not be interrupted; unless it be a case of spasm or violent pain which calls for immediate relief. Strong Purgatives are best taken in the morning; at night they would disturb the rest, and cause great inconvenience. All these, of course, are but general rules, to which there are numerous exceptions. The discreet mother or nurse will know when they are to be strictly followed, and when departed from.

**MEDICINE CHEST.** Every one who desires to keep a stock of medicines for domestic use, should take care that it is in a secure place, and under lock and key; and, by no means can this be so conveniently effected, as by the purchase of a Medicine Chest properly fitted for the purpose. One of these can now be obtained at no great cost, with all the drugs and preparations, as well as instruments and apparatus required. The price of course will depend upon the size, style, and mode of fitment; but a very good one may be purchased for about £2; one for the use of Emigrants, made of japanned tin, calculated to resist the attacks of insects, and the effects of heat in a warm climate, has been prepared, and may be had stocked, for 30s., but is scarcely sufficient for the requirements of a family; and one of mahogany, or other strong wood, neatly made and fitted, will cost, at least, double this. The drugs and preparations which are most essential for this purpose are Aloes and Burnt Alum, both in powder; Ammonia, the Compound Spirit, and Acetate, or Spirit of Mindererus; Antimony, the Tartrate, and James's Powder; Cantharides, in the form of Common Blister Plaister, or Blistering Tissue; Castor Oil; Chalk, Prepared; Camomile Flowers; Chlorine, Chloride of Lime, in Powder, or Beaufoy's Solution; Cream of Tartar; Creosote; Copper, Sulphate; Dill, Water or Essence; Gentian and Ginger Roots; Henbane, Extract; Ipecacuanha, in Powder; Iron, Sulphate, and Muriated Tincture of; Lead, Acetate, or Sugar of; Magnesia, Calcined, and Sulphate, or Epsom Salts; Mercury, Chloride of, or Calomel; Mustard, Flour; Opium, in Powder; Pills, Compound Colocynth; the same with Calomel; the same with Hydrargyrum, or Blue Pill; which should also be kept separate; Compound Rhubarb, and Expectoant; Potash, Bi-carbonate of; Nitrate of, or Saltpetre; Powders, Compound; Chalk with Opium, and Dover's Powder; Rhubarb, Root, Powder, and Tincture; Scammony Powder; Senna Leaves; Silver, Nitrate of, or Lunar Caustic, in quill, or gutta-percha holder;

Soda, Bi-carbonate of; Spirit of Sweet Nitre; Sulphuric Acid, or Oil of Vitriol, diluted; Zinc, Sulphate of, or White Vitriol. Scales with Weights; an Ounce and a Minim Measure; a Pestle and Mortar; Bone and Iron Spatulas will also be required, with Diachylon Plaister, Lint, Bandages; and as many of the *Instruments* named under that head as can be procured, are also desirable additions to the store.

**MEDULLA.** Latin for *Marrow* (which see). From this root come *Medulla oblongata*, a portion of the *Brain* (which see). *M. spinalis*, the spinal marrow, or cord. (See *Spine*). *Medullary*, the white substance of the brain, contained within the cortical, or cineritious substance, so called from its resemblance to marrow, on which account also the name *medullin* has been given to the porous pith of the sunflower.

**MEGRIM.** This term is probably a corruption of the Greek root *hemierania*, through the French *megraine*, applied to a neuralgic pain in the side of the head; it is usually the result of debility; it sometimes may be relieved by a warm fomentation of the part, but to effect any permanent relief, tonics, and a nourishing diet must be had recourse to.

**MEIBOMIAN GLANDS.** These are small glands first discovered by Meibomius, lying under the inner membrane of the eyelids. About twenty or thirty minute ducts of these glands open upon the tarsus of each eyelid; the glands are sometimes called *ciliary follicles*. See *Eye*.

**MEL.** Latin for *Honey* (which see). It is employed as a vehicle for several medical preparations, which are collectively termed *Mellita*. Among them are *Mel. Boracis*, and *Mel. Rosæ* (Honey of *Borax* and *Roses*) (see these heads).

**MELANA.** This is the *morbus niger*, or Black disease of the ancients, sometimes called Black jaundice; it is characterized by dark-coloured, pitchy evacuations, generally accompanied by sanguineous vomiting: we sometimes hear of it as *Melena cholæa*, or *M. cruenta*, meaning Black jaundice or vomit. Hoffman termed it *Cæcussus niger*. See *Bile*.

**MELAMPEDIUM.** A name given by the Greeks to the Black Hellebore, from Melampus, who is said to have cured the daughter of Prætus, King of Argos, of melancholy, by means of this plant. See *Hellebore*.

**MELANCHOLIA** (Greek for black bile or choler) signifying melancholy, or mental dejection. This is a form of madness; it has been divided by some psychologists into four distinct varieties, viz.:—1. *Attonita*,



gloomy and retiring; 2. *Errabunda*, restless, roving; 3. *Malevolens*, mischievous, morose, &c.; 4. *Complacens*, self-complacent, affable, &c. (See *Insanity, Lunacy, Mania.*)

Under the head of *Temperament* we shall speak of the *melancholic* as a predisposing cause of sickness; at present it will be sufficient for us to observe that a habitual state of melancholy and despondence is a most unfavourable one for resisting the attacks of disease, and it behoves every one who finds such a state of mind coming on to use every possible effort to shake off the depression. Melancholy when extreme, and of long continuance, amounts to a disease, and commonly runs into at least partial insanity. Cullen says it is this without dyspepsia. By others it is defined as mental alienation, restrained to a single object or train of ideas. See *Monomania*.

**MELALEUCA LEUCADENDRON.** A tree of the natural order *Myrtaceæ*, a native of the



Moluccas, yielding the *Cajepout Oil* (which see), we give a cut of this plant.

**MELANOSIS, or MELANOMA.** A morbid product of a dark brown or black colour, described by Laennec; *Melas* itself was a term applied by the ancients to a superficial affection, resembling the *alphos*, or white lepra, except in its colour; it is synonymous with the *Lepra nigricans*, (see *Leprosy*.) *Melasma* was the name given by Linnaeus and others to the *Ecthyma luridum*, or *Lurid Papulous Scall*, (which see). *Melasic acid* is an acid present in *melases*, or molasses, commonly called treacle; by some it is considered as a peculiar acid; by others but a modification of the acetic.

**MELAS** (Greek for black). From this root we have, in addition to those above given, several medical terms, such as *melanic acid*, which is the name given to a principle discovered by Dr. Marcet in black wine; it is apparently connected with lithic acid.

**MELANÆMA** (Greek for black blood). A name given by Dr. Godwin, to asphyxia, from the colour of the blood in this affection. See *Asphyxia*.

**MELICERIS** (Greek *meli*, honey, and *keros*, wax). A tumour of the encysted kind, filled with a substance resembling wax or honey in consistency. See *Tumours*.

**MELISSA OFFICINALIS.** The name of a plant used in febrile diseases. See *Balm*.

**MELILOT.** A plant of the natural order *Leguminifera*, called by botanists *Melilotus Officinalis*; it grows wild in the English hedges and field borders; the flower has a peculiar odour, like that of the Tonquin bean, which is strongest when dry; it is employed to impart the characteristic flavour to the Gruyere cheese of Germany, called *schabziger*, or scraped cheese; the whole plant has a bitterish taste, but is eaten by cattle, and



was formerly employed medicinally as an emollient and digestive, in the form of fomentations and cataplasms. Up to a very recent period, an ointment of Green Melilot was sold by the druggists. This plant is prolific of honey, and is excellent pasturage for bees, hence the Latin name, from *mel*.

**MELLITIC ACID.** An acid discovered in

the mellite or honey-stone; properly the native mellate of alumina, the salts of which are called mellates.

**MELON.** This delicious but indigestible fruit, is the product of the *Cucumis Melo* of botanists; it belongs to the natural order *Cucurbitaceæ*, and is a native of the West Indies, whence it has been recently exported to this country in such large quantities, as to be sold at the low rate of one penny per slice; but very commonly before it passes out of the hands of the vendor, the fruit is in a state of partial decomposition, and is more unwholesome than when quite fresh; in its best condition we would not recommend it to persons of weak digestive organs.

**MELTING POINT.** That degree of heat at which a solid becomes a fluid. The following table exhibits the comparative temperatures (Fahrenheit) at which some of the principal substances known to us melt:—Ice at 30°; phosphorus, 90°; spermaceti, 112°; potassium, 150°; sodium, 190°; sulphur, 218°; camphor, 303°; lead, 612°; zinc, 680°; silver, 4,717°; gold, 5,237°.

**MEMBRANE.** (Latin *membrana*). A membrane is sometimes a bag for containing fluids, sometimes a thin substance lining a cavity; it consists of concrete gelatine, and like skin, may be changed into leather by tanning. The membranes of the body are divided by anatomists into 1st, the *mucous*, which invest the sides of cavities communicating with the external air, such as the throat. 2nd, *serous*, lining cavities, which are not externally open; 3rd, *cellular* membrane, or areolar tissue, which connects the minute component parts of most of the structures of the body; 4th, *fibrous* membranes, which are of various forms, constituting capsules, sheathes, &c. Then there are peculiar membranes, which do not belong to either of these classes, such as *M. nictitans* (Latin *nicto*, to wink), with which birds can occasionally cover their eyes; *M. pupillares*, which extends across the pupil of the eye in the fœtus; *M. tympani*, which extends over the circular opening of the ear, forming what is called the drum, or tympanum; *M. pituitaria*, which lines the cavities of the nose.

By the term Membrane, then, as used in anatomy, we must understand a thin wide layer, or an expansion of tissue; its office is to protect and envelope all the more tender parts of the body; in its thinnest and purest state, which is that of a mere pellicle, in which no trace of structure can be detected, even when submitted to the highest power of the microscope, it is termed primary, or basement membrane, but it is

more commonly constituted either of flat cells, or interlaced fibres, thus, the surface of the serous and mucous Membranes are spread over with layers of minute cells, which are adapted to the functions of the particular organs which they cover; these layers which resemble the epidermis, or cuticle, which is spread over the skin, we term the *epithelium* of the Membrane.

These tissues, like all other substances of the animal body, are liable to a variety of affections, but they are most affected by those of an inflammatory nature; thus we have *pleuritis*, inflammation of the pleura, or Membrane which covers the lungs; *pericarditis*, inflammation of the pericardium, or investing Membrane of the heart, and other diseases of the kind which we need not particularize, as they are all mentioned under special heads.

**MEMORY.** This remarkable power of the human mind to store up, as it were, scenes and events, and recall them at will, appears to be one which, in this life at least, is never wholly lost; for although sometimes it appears to be so—although from age, or other circumstances, it becomes defective, and words and things seen and heard but a few days before, cannot be recalled, yet we well know that in certain states of mind and conditions of the system, and especially of the brain, the Memory of long forgotten events come up as freshly and vividly, as if they had but just occurred, showing that the power of recalling them had but been in abeyance for a time. Entire or partial loss of Memory, unless it can be accounted for by age, should always be looked upon with suspicion, as indicative of incipient cerebral disorder, which may lead to insanity. Like all other powers of the mind, Memory may be improved by exercise, and those with whom it is defective should make great efforts to remedy the defect, by habitual practice.

**MENDOSUS** (Latin *mendax*, false). Hence *Mendosa costæ*, the false rib; *M. suturæ*, the bastard or squamous suture of the cranium.

**MENINGES** (plural of the Greek *meninx*, a membrane). A name applied to the dura and pia mater. (See *Brain*). From the same root we have *meningitis*, inflammation of the membranes of the brain and spinal marrow. (See *Encephalitis* and *Myelitis*.) An instrument formerly used to protect the brain from injury during the operation of trepanning, was termed a *meningophylax*.

**MENORRHAGIA** (Greek *menos*, a month, and *megnyri*, to break forth). A morbidly profuse discharge of the *Catamenia*, sometimes called *Amenorrhæa* (which see).



**MENOSTATION** (Greek *menos*, menses, and *istemi* to stand). A suppression, or retention of the catamenial discharge. See *Menstruation*.

**MENISPERMUM**. Is the name of a genus of plants, to which the species which yields the Columba root was formerly said to belong; it was called *Menispermum cocculus*, and an acid obtained from its seeds was known as *Menispermic acid*. The plant is now termed *Cocculus Palmatus*. See *Calumba*.

**MENSTRUATION** (Latin *menses*, a month). The functions of the uterus, by which the menstrual, catamenial, or monthly discharges take place; these generally commence between the fourteenth and sixteenth years of age, although we have known them to begin as early as eleven or twelve; a considerable period may elapse between the appearance of the first and second menstrual discharge; but, when they are properly established, their recurrence, at regular periods, may be calculated on with great certainty, unless some functional or other derangement of the system interferes with them. Ordinarily a lunar month of 28 days is the intervening period, but with some females, the discharge occurs every third week; the fluid discharged resembles blood in colour, but it does not coagulate; the quantity is from 3 to 5 ounces, and the process occupies from 3 to 5 days. The quantity, however, and duration of the emission varies greatly in different females, and unless the former is either very scanty or excessive, these do not appear important particulars; but the regular recurrence of the issue is important to health; this should be borne in mind, and due care taken not to suppress the discharge by exposure to cold or wet, or by violent exertion of any kind about the time when it may be expected. It is desirable that young females should be properly informed by their mothers, or those under whose care they are placed, of what may be expected at a certain age, or they may be alarmed at the first appearance of the Menses, taking it to be some indication of a dangerous disease or injury, and, perhaps, by mental agitation, or a resort to strong medicines, do mischief to themselves. If the Menses do not appear at the usual age, or for some years after, no alarm need be felt, provided there is no constitutional derangements which can be attributed to this cause. Some women never menstruate, although they may be married and have a family. Most commonly with suppressed Menstruation, which we understand the term *Amenorrhœa* to signify,

there is, if not actual disease of the parts, more immediately involved in the process, a weakly and unhealthy state of the system; when there is such suppression, discharges of blood will sometimes occur from the nose, mouth, and gums, or from the stomach and bowels: nearly always there will be unnatural heats and flushings, head ache, tendency to faint, and hysterical symptoms. At the regular periods when the Menses ought to appear, there will be great excitability, and an aggravation of the above symptoms; with those of full habit, there will be a strong, bounding, pulse, with acute pain in the head, back, and limbs; with the feeble and sickly, extreme languor, tremblings, shiverings, and pale visage.

In the first case, the *treatment* will be spare diet, free purging with saline aperients, cupping in the loins, and vigorous exercise between the periods; in the second, nutritious diet, with Wine or bitter Ale; tonic medicines—some form of Iron is the best, in combination with Quinine; gentle aperients, such as Castor Oil, or Compound Rhubarb Pill, and the use of the Hip-bath, the latter especially for a few days before the menstruating period; every other night the bath should be made more stimulant by the addition of a little Mustard, and, on every occasion, active friction with dry coarse towels should be used; a lavement, containing 2 drachms of Spirit of Turpentine, may also be useful; and a leech or two applied to each thigh, on the upper part, as near to the situation of the uterus as may be. All this should be done in a case of *acute suppression*, that is, where the secretion of the Menses has taken place, but derangement of the general health, or perhaps some mechanical obstacle prevents its appearance; if the latter is the case, of course, surgical aid is necessary. *Chronic suppression* may result from the acute, or from defective nutrition of the organs; from the early termination of menstrual functions, or from the weakness occasioned by a profuse discharge of “whites” from the uterus. In this case we generally have pains in the head, sides, and back, loss of appetite, giddiness, sallow complexion, with a dark line round the eyes, generally torpid bowels, with other dyspeptic symptoms. It is sometimes difficult to distinguish between this and the early stage of pregnancy; in both we have a large abdomen, but in the latter usually the breasts are flat, in the former full and plump, but the doubt will not long remain; the morning sickness, the increasing size of the abdomen, and the other unmistakeable

signs of pregnancy, if it be that, will dissipate it in a month or so.

In a case of chronic suppression, if there be no indications of disease which call for special treatment, and if the age of the patient be such as to warrant a reasonable expectation that emmenagogue remedies may be of service, they should be resorted to. (See article on *Emmenagogues*.)

In this case, too, the warm Hip-bath should be used about the proper period of Menstruation, and it would be well to give some uterine stimulant, such as Ergot of Rye, of which about 5 grains, with 2 grains of Aloes, and a drop of Essential Oil of Juniper, made into 2 pills, or mixed up in a powder, would be about the dose to be taken each night at bed time, with a draught of Pennyroyal Water; or a mixture composed of Spirit of Turpentine, made into an emulsion with Yolk of Egg, Sugar, and Essence of Juniper, about 6 drachms of the first and 1 of the last, in a 6 ounce mixture; 1 ounce to be taken three times a day. These means of promoting the discharge in any case must not be prolonged much beyond the menstrual periods, between which all possible means must be taken to strengthen the system; good diet, plenty of active exercise, the use of the shower bath, or cold, or tepid sponging; Steel Mixture, with Aloes and Iodine, in one or other of its forms; these are the proper remedies.

When the Menstrual period comes round again, use the means above directed, and continue thus to alternate the treatment until success crown the efforts, or the case becomes altogether hopeless. If the Amenorrhœa proceeds from a want of energy in the uterine organs to secrete the red discharge, as is often the case after frequent miscarriages, child bearing, or inflammation of the womb, as well as after leucorrhœa, or "whites," there will probably be the usual signs of Menstruation, followed by a white discharge only, and accompanied by acute pain at the bottom of the back, vertigo, and hysteria. Weakly young women, before accession of the Menses, and elderly ones, at the time of their cessation, or "change of life," as it is commonly called, are often so affected. In such a case we should prescribe hot baths and tepid injections, pills of Sulphate of Iron and Aloes, with Balsam of Copaiba, 10 or 20 drops in milk, three times a day; or Powdered Cubebs, from a scruple to half a drachm; good diet, and a recumbent position as much as possible during the periods. If the patient is of a full habit, apply leeches, 10 or

12 over the sacrum, to be followed by a blister, with restricted diet, and, for a time, avoidance of sexual intercourse.

*Sudden suppression of the Menses* may arise from exposure to cold or wet, from extreme mental distress, and several other causes; it is generally accompanied by violent headache, severe pain in the loins and abdomen, difficulty of breathing, and shivering. In this case the patient must take warm diluent drinks, saline aperients, till the bowels are freely opened, have hot bran poultices applied to the lower part of the abdomen, immerse the feet and legs in hot water, rendered stimulant by the addition of Mustard; if the pain is extreme, take an opiate draught every four hours, and have a lavement, with 1 drachm of Turpentine, and  $\frac{1}{2}$  a drachm of Tincture of Opium thrown up; she must also be kept as quiet as possible.

*Painful Menstruation* is the rule with some females, but the exception with most; it does not seem to be in any way connected with the quantity of the discharge, and it may attend both the secretion and the emission; or but one or other of the processes, and but partially, coming on in paroxysms, or continually, during the whole process; the matter discharged is often thick and membranaceous, and sometimes has in it clots and streaks of blood; the cause of this is not very clear; it has been observed to occur after strong mental emotions, a cold caught during the menstrual period, a fright or other shock to the system, and would seem to indicate an irritable state of the womb. In this case we must resort to warm hip baths and friction, fomentation of the parts, diluent drinks, saline aperients, opiates, and a spare diet; injection of warm water high up into the vagina, &c.

*Profuse Menstruation* consists either in the too frequent return, or too long continuance of the periods, or in an excess of quantity during the natural periods, or in the character of the discharge being other than it should be, such as thick, fibrous, or bloody. It is generally accompanied by pain across the loins, great languor and debility, throbbing of the temples, headache, and vertigo; when there is much hæmorrhage, there is an aggravation of these symptoms, sometimes followed by dropsy of the cellular tissue. This is in consequence of irritability of the uterine system, probably produced by over-exertion, luxurious living, with insufficient exercise, or excesses of any kind; too rapid child-bearing, frequent miscarriages, or protracted lactation.

The treatment in those of full habit,



where the Menses are not bloody, should be leeching or cupping in the loins, saline aperients, with Iron and Sulphuric Acid; this is a good form of preparation: Sulphate of Iron 12 grains, Dilute Sulphuric Acid 1 drachm, Sulphate of Magnesia 6 drachms, plain or Cinnamon Water 12 ounces; take 2 table-spoonsful three times a day. If there is much pain, add Tincture of Henbane, 2 drachms: or Compound Infusion of Roses may be taken, with Sulphate of Magnesia; or 10 or 15 drops of the Muriated Tincture of Iron in Water, with or without the Salts, as the bowels may require, two or three times a day. Sponge the loins and pubenda with vinegar and water, use the hip bath, but let it be cold water, with a little salt in it; to strengthen the system as much as possible, and avoid all enervating influences. If there is blood in the discharge, do not leech nor cup, unless it be dry cupping merely, which may be serviceable; use cold vaginal injections, with Alum and Opium in them, or the latter with Gallic Acid, about a drachm of each to a quart of water; apply hot bran poultices to the breasts. Keep the feet warm, but let the loins be lightly covered; take carriage exercise, bitter ale, and tonics, especially Iron.

*Cessation of Menstruation.* As the accession of the Menses shows when the womb is in a fit state for conception, so then, cessation gives notice that the period of child-bearing is past. Sarai, we may remember, when promised a child in her old age, was incredulous, because it had "ceased to be with her as with women;" those periodic signs of the activity of the organs of conception, of which we have here been speaking, had long since disappeared; with females of our age and country they commonly continue up to the age of from 40 to 50; sometimes they cease at about 35, and in a few instances have been known to continue up to the age of 60; this cessation marks what is commonly termed the turn or change of life in women, and with those of average health it occasions little or no disturbance of the general system; there may be flushings of the face, and a sense of fulness in the head, with occasional giddiness; but with those who are weakly and nervous, or suffering under any organic disease, we generally see a marked change at this period; it may be for the better or worse, according to circumstances. With most persons the stoppage of the Menses is a gradual process, the quantity decreases, or the intervals become protracted, and it is probably superseded by a white discharge, which also will by and bye disappear; with some the cessation is

sudden and complete. Women generally consider this an eventful period of their lives, and attribute all sorts of wonderful effects to it; but we cannot learn that a sickly constitution was ever renovated at this time, or ever broke down in consequence of the change; indeed, fewer women than men die at the age when it usually takes place. Diseases of the genital organs, and of the breasts, which are sympathetically associated with them, require especial attention at this time, as they are likely to be stimulated into activity. When there are no complications of disease connected with the change, little or no medical treatment is required; it is best to observe an abstemious diet, and to keep the bowels moderately open with Rhubarb or Colocynth pills; the Powdered Aloes with Canella, commonly called Hiera Picra is a popular opening medicine, and as good as any for such an occasion, except the patient be of a very full habit, in which case it should be a saline aperient like this: dissolve 2 ounces of Epsom Salts in a pint of Warm Water, add 1 drachm of Essence of Peppermint, take a wine glass full every morning, or twice a day if required; if there is flatulency or hysteria, add to each dose 20 drops of the Fœtid Spirits of Ammonia, or the same of Ether.

MENSTRUUM is a term synonymous with *solvent*; it is a liquid which does not change the nature of the substance to be dissolved. The old alchemists entertained the notion of a universal solvent, which they called by the arabic name *alkahest*, and by which wonders were to be effected, but, as far as we can ascertain, they never found out this universal Menstruum of miraculous powers and qualities. With us, the several Menstrua in which medical agents are held in solution, are usually denominated *vehicles of administration*.

MENSURATION (Latin *mensura*, a measure). In medical practice this term is applied to the admeasurement of the chest, for the purpose of ascertaining the comparative size of its two sides; it consists simply in measuring with a piece of tape stretched over the surface from one point to another. To measure the capacity of the lungs, the patient is caused to exhale a full breath through a bent tube communicating with an inverted jar containing water, the quantity of which displaced by the air shows how much of the latter the lungs will contain.

MENTHA. The scientific name of a genus of plants of the order *Labiata*, all of which yield volatile oils. See *Pennyroyal*, *Peppermint*, *Spearmint*.

MENTUM, Latin for the chin, hence to

nerves, &c., pertaining to this part we sometimes see the adjective *mental* applied.

**MENYANTHES TRIFOLIATA.** The scientific name of a plant, sometimes called Marsh Trefoil, but more commonly *Buck Bean*, (which see.) On account of its bitterness, says Dr. Parr, this plant is sometimes substituted for hops; the powdered Leaves in doses of 1 drachm are given to sheep to cure the rot.

**MEPHITIS.** The name of the heathen goddess of bad odours, hence the term is applied to an impure or poisonous exhalation. Carbonic acid gas, which occasions death if inhaled, has been called *Mephitic acid*; and nitrogen gas, also from its deadly nature, *Mephitic air*.

**MERCURY**, as every schoolboy knows, was the messenger of the gods, and we now apply his name to that metal called *Argentum vivum*, or quicksilver; why it is not easy to say. This metal differs from all others in being always fluid, unless subjected to a temperature of 39°, when it becomes solid; it is extensively used in medicine (see *Hydrargyrum*), and gives name to several forms of disease which are caused by its action on the system, thus we have *Mercurial erythema*, an affection which is characterized by irregular action of the heart, frequent sighing, trembling, &c.; also, *Mercurial rash*, a variety of the *Eczema rubrum*, arising from the irritation of Mercury; it is sometimes called *Erythema mercuriale*, and *Mercurial lepra*. See *Erythema* and *Skin Diseases*.

**MEROCELE.** (Greek *meros*, the thigh, *kele*, a tumour,) a name for femoral or crural *Hernia*, (which see.)

**MESENTERY.** (Greek *meros*, the middle, and *entera*, the bowels.) The broad fold of the peritoneum, or covering membrane of the bowels, by which the small intestines are attached to the spine, and retained in their place, is so called; the adjective of the term is *mesenteric*, from it we have *mesenteritis*, inflammation of the mesentery; *mesaraic* the small intestines; *mesocolon*, that part of the mesentery which is attached to the colon, its adjective is *mesocolic*; also, *mesorectum* and *mesocæcum*, that part of the peritoneum which is connected with the rectum, and that which embraces the cæcum and its appendix. See *Intestines*.

**META** (the Greek preposition after or with, it often stands for change,) from whence come the terms *Meta-carpus*, that part of the hand between the *carpus*, or wrist, and fingers; *Meta-tarsus*, that part of the foot between the *tarsus*, or instep, and toes; *Metamorphosis*, a change of vision; a kind of amaurosis in which objects appear

confused or disturbed, (see *Eye*); *Metastasis*, a removal from one place to another, a term applied to cases in which an affection of one part or organ is checked by the intervention of disease in some other; thus we have a cessation of rheumatism followed by pericarditis, &c.

**METALS.** A class of mineral substances on which, as all know, we depend greatly for the supply of our wants and necessities; of their use in the arts and sciences it is not within our province to dwell, except in so far as relates to medical science, and in this they perform an important part. Gold, silver, iron, copper, mercury, lead, tin, antimony, zinc, bismuth, arsenic, manganese, potassium, sodium, barium, strontium, calcium, aluminium, magnesium, these are the principal metals which, as the bases of alkaline salts, as acids or oxides, or in the pure state, are largely employed in the treatment of diseases, as they will each and all be found under their proper heads, we need not here speak of their several natures and properties. When found in an uncombined state, they are termed *native*; when combined with other bodies, *mineralized*; if the combination be with any other metal, except mercury, they are *alloys*, possessing the characteristic properties of pure metals; when the combination is with mercury, it is called an *Amalgam*, (which see.)

The result of the oxidization of metals when heated in the air, was formerly called a *calx* from the process *calcination*; when mixed with the nitrate and chlorate of potash, and projected into a red-hot crucible they are said to be *deflagrated*; they suffer *reduction* when the oxides are reduced to the metallic state. Metals are the best reflectors of caloric, or heat, and the worst radiators. Metals obtained from the fixed alkalies, or earths, were formerly called *metalloids*; we now speak of them as metallic earths, &c.

**METEOROLOGY** is compounded of two Greek words, signifying a description of Meteors, and it is applied to a study of the variable phenomena of the atmosphere, which are owing to the operations of *Heat*, *Light*, *Electricity*, &c., all these have considerable influence on the health of human beings, and, therefore, we deem it desirable that we should speak of them in this work. Under the above several heads, as well as those of *Air*, *Atmosphere*, *Gases*, *Temperature*, *Ventilation*, &c., will be found the special observations we have to make upon this subject, so that it will not be necessary for us to extend our remarks here.

**METHODE NUMERIQUE.** French for the



numerical method; a mode of pursuing the study of medicine, invented by M. Louis; it consists 1, of collecting, with a strict regard to accuracy, individual cases, and 2, in analysing and collating them, so as to be able to deduce general laws and conclusions. This principle is recognized, and, to a certain extent adopted, in all modern schools of medicine, although it is not made so fundamental a principle as the French physiologist would have it.

**METHODIC SECT.** A class of practitioners in ancient Rome, founded by the physician Themison, a disciple of Asclepiades, who attributed all diseases either to overbracing or relaxation: hence they classed all medicines under two heads, *bracing* and *relaxing* remedies; here again we have a theory founded on fact, only it was pushed too far; in modern practice its application is more limited, and it works well.

**MEZEREON.** *Daphne Mezereum* is the botanical name of this plant, which is a kind of spurge laurel, belonging to the



natural order *Thymilaceæ*; it is a native of Britain, and one of the greatest ornaments of the garden in spring; the blossoms, which are beautiful and fragrant, appearing before the leaves, which have an acrid, pep-

pery taste; the Russian peasantry take 30 or 40 of them as a purgative, and give them as an emetic to children with whooping cough; generally in this country 8 or 10 of them will cause purging. The Bark, both of the root and stem, is used medicinally, that of the former being most powerful. Taken internally it is a stimulant, having a tendency towards the side and kidneys; in over-doses it produces all the effects of a narcotic poison.

**METOPOSCOPY** (Greek, *metopon*, the forehead, and *okopeco* to examine). The art of divining by inspection of the forehead practised among the Romans; modern diviners examine the lines of the hand, but we question if they give so good an indication of the character and fortune of the individual, as those which the toils, and troubles, and sorrows of life plough upon the forehead, looking on which, too, the seer, might read the expression of the whole face, and thus be greatly assisted in his guessing, for it could be nothing more after all.

**METRA**, Greek for the uterus, hence the terms *metritis*, inflammation of the uterus; and *metrorrhagia*, uterine hæmorrhage, and *metroscopie*, an instrument designed for examining the uterus.

**MIASMA** (Greek *Miasmo*, to pollute). This is a term which is employed to designate a volatile principle, which exercises a deleterious influence on those exposed to its action, and which arises from decomposed animal or vegetable matter, from the bodies of the sick, or from the moist earth when exposed to the action of the sun. The term is seldom employed in reference to the morbid effects of contagious diseases, but is more commonly restricted to those of moist, marshy districts, in which sense it is the same as *Malaria*, (which see), also *Ague*, and *Remittent Fever*.

**MICROCOSMIC SALT** (Greek *mikros*, little, and *kosmos*, order). A triple salt, obtained by mixing equal parts of the phosphates of soda and of ammonia in solution, and then crystallizing. It is employed as a flux in experiments with the blow-pipe.

**MICROGLOSSIA** (Greek *mikros*, and *glossa*, the tongue). Congenital smallness of the tongue, owing, it is likely to an arrest of development, and the consequent existence of the hyoide, or root portion only of the organ; it is one of the causes of *Dysphagia*, or difficulty of *Swallowing*, (which see).

**MICROSCOPE** (Greek *mikros*, and *okopeco* to view). This is an optical instrument, consisting of lenses or mirrors, by which minute objects are magnified, and thus rendered visible, so that their texture and

structure can be examined. Into the particulars of construction of this useful instrument, we cannot here enter, our object being merely to allude to it as one of the greatest aids to modern medical scientific inquiry. By its assistance the urine, and other animal secretions can be closely examined, and their constituent elements determined. The exact character of tumours and other morbid growths, also, can be clearly ascertained by an application of the magnifying power of the Microscope; and many diseases, especially those of the skin, traced to their true origin. In medico-legal investigations, too, this instrument is rendering most important service, and sworn evidence can now be given upon spots, and stains, and other marks of crime, on which it would otherwise be impossible to found a decided opinion. In the detection of food-adulteration we likewise find the Microscope extremely serviceable; it is now clearly established as a fact, that every animal and vegetable substance has its peculiar structure, and no admixture of two or more of these can take place, but when subjected to the test of a high magnifying power, its detection is certain. See *Adulterations*.

**MIDRIFF.** The common name of the muscle which divides the thorax, or chest, from the abdomen; its scientific name is *Diaphragm*, (which see).

**MILK.** This is the fluid secreted by the mammiferous animals for the sustenance of their young; it is the only fluid that we are acquainted with, throughout the whole range of organized Nature, prepared expressly and solely for such a purpose; and it contains within itself all that is most requisite to build up the frame of the living animal, and to keep it in health. In all animals it is characterised by certain general properties, but in each it possesses some peculiarities of composition which especially fit it for its intended purpose. When examined under the microscope, it is found to consist of minute spherical globules, which are suspended in a thin serous fluid; and the greater or less number of these globules constitutes the richness or otherwise of the Milk; this we shall show more clearly presently. Naturally, good Milk is thick and opaque, but when diluted with water the proportion of thin fluid is increased, the rich whiteness is destroyed, and the whole assumes a bluish and semi-transparent appearance. These globules chiefly consist of the oleaginous or fatty portion of the Milk, which we commonly call cream; having a less specific gravity than the fluid on which they float, they have a tendency to rise to

the top, and hence can be separated by skimming, especially if a slight degree of warmth be applied to the fluid; they may also be driven into closer union by a rotary or other motion, so as to become clotted together, and more or less solidified, in which case we have *Cheese* and *Butter*.

We have stated that the quality of Milk depends on the presence of the white globules to which its colour and opacity are due.

Skim Milk, Butter Milk, Cream, Butter, Curds and Whey, Cream-cheese, and ordinary Cheese, are mere modifications of Milk, differing only from each other, either in the abstraction of one or more of its constituents, or else in the variation of their proportions.

*Butter* differs little from cream, but is more completely separated from the sugar, cheese, and salts; and the fat globules in place of being free and distinct, have all run together, so as to form a semi-solid substance.

*Cheese* is made from skim Milk, entire Milk, or cream; it consists of the caseine and butter. The cheese prepared from skim Milk containing the smallest quantity of butter; that from entire Milk, *vs* Cheshire cheese, a larger quantity; and that from cream, as *Stilton* cheese, the most of all.

Now, although the caseine and sugar of Milk, as well as the butter, vary in quantity in different cases, yet, ordinarily, the quality of Milk is estimated by the amount of cream which it yields.

For the determination of the quality of Milk, it is, however, requisite not only to ascertain the amount of cream which it yields, but also to take the specific gravity or density of the Milk.

In estimating the specific gravity of any liquid, distilled water is taken as the standard, being reckoned at 1,000. Now Milk, holding as it does in solution a large quantity of sugar, casein, and salts, is of course much heavier than water; and it is stated that Milk of good quality should have a specific gravity of about 1,031. But Milk, as we have seen, contains also a large proportion of fatty matter, and which, being much lighter than distilled water, serves when equally suspended through the fluid, to decrease its density. The larger therefore the quantity of cream, the lower will be the specific gravity—some Milks, owing to the large quantity of cream contained in them, possessing a density of only 1,020, or even less.

We have said that the butter is suspended



in Milk in the form of innumerable droplets of various sizes; in rich Milk, these are particularly abundant, so that when a drop of such Milk is viewed under an object-glass of high magnifying power, the field is crowded with myriads of these globules, as shown in fig. 1.

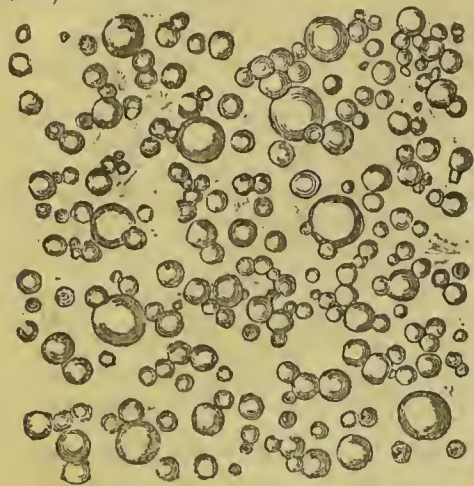


Fig. 1.—Good Milk.

In an impoverished Milk, the globules will be smaller in size and fewer, and the field of vision will present the appearance of fig. 2.

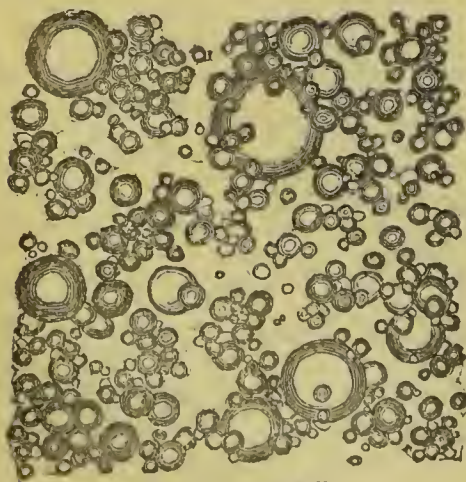


Fig. 2.—Poor Milk.

When curd of Milk is examined under the microscope, the butter is still seen as droplets of fat, and the cheese as a granular substance of a yellowish colour. See fig. 3.

Of all the articles of food, none is so much adulterated as Milk. We find different writers naming a variety of ingredients as commonly employed in the adulteration of it—amongst which may be mentioned *flour*,

*milk of almonds, gum arabic, gum tragacanth, chalk, turmeric, carbonate of soda, sugar, emulsion of hemp-seed, and sheep and horses' brains, rubbed up with water into an emulsion.*

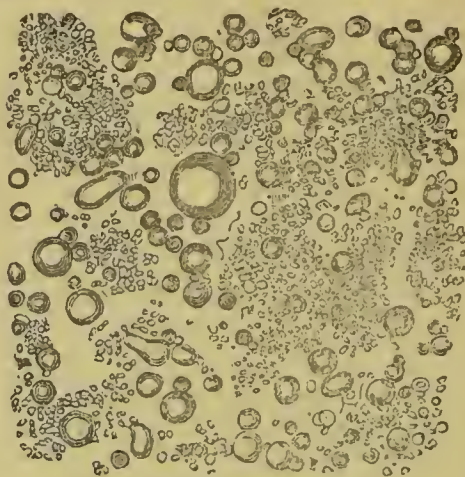


Fig. 3.—Curd of Milk.

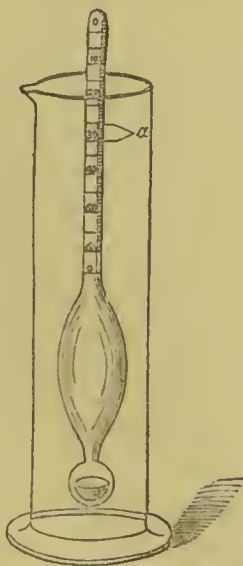
Chemical analysis shews that Milk is composed of the oily or fatty constituent, in the form of globules, called Cream, and Water, which holds in solution Curd or Caseine in combination with Salt, Phosphate of Lime and Magnesia, and a saccharine principle called Sugar of Milk, which latter ingredient is not present in the lacteal fluid of the purely carnivorous animals, but appears as soon as vegetable food is taken. In the Milk of the cow, we find that the caseous, oleaginous, and saccharine ingredients bear about an equal proportion; in human Milk, the two latter are proportionately greater than the former, or curd; consequently the Milk is less opaque and thinner than that of the cow, and more like that of the mare and ass.

The average specific gravity of fresh Milk is 1.030; it is alkaline, and as far as the unassisted vision can detect, perfectly homogenous; that is, its constituent elements are perfectly combined and consistent throughout; but after standing awhile, the light oily particles separate and float at the top; then a process of fermentation is set up; Acetic Acid is evolved, and souring or curdling takes place; this is the case much sooner in warm weather than in cold; by it Milk is rendered unfit for the purposes of nutrition, and therefore it should not be given to children when in this state. On Milk, as food for the young, we have already spoken under the head of *Infants*; we shall, therefore, now confine our remarks to this bland fluid as a general article of

diet, the adulterations to which it is subjected, and the modes by which these adulterations can be detected.

It is, perhaps, sufficiently well understood that the Milk of animals, and especially of those which feed much on vegetables, is highly nutritious; and yet, generally speaking, it will not do for invalids to live too exclusively upon it; its richness and tendency to curdle or coagulate, render it somewhat indigestible; there are, no doubt, many of our readers who never take a basin of Bread and Milk without having a head-ache, or continue it long without becoming bilious; this shows that it is too heavy for the stomach: a hearty labouring man may take plenty of Milk, as he may of fat pork, but with weakly persons, or those of sedentary habits, a Milk diet will not agree; it is pleasant and wholesome as an adjunct to other food, but must not, in such cases, be made a common article of diet.

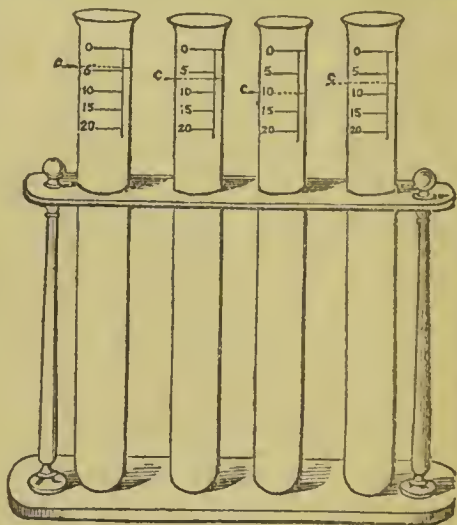
We will now proceed to show the various mechanical means by which the quality of Milk may be tested. And first, to ascertain the specific gravity, which at a temperature of 50° Fahr. is commonly set at 1.030; this must be done by means of a Hydrometer, of which a cut is here given.



Here we have an upright glass, with a stand and lip, into which the Milk to be tested is put; and a graduated glass tube, which swells out near the bottom, and terminates in a small globe loaded with quicksilver. The depth to which the tube sinks as indicated by the figures on it, shows the specific gravity of the fluid; *a* indicates the

range of pure Milk. Fat, being lighter than water, the less of the fatty constituent or Cream there is in the Milk, the greater will be its specific gravity; but this, although a commonly received test of the goodness of Milk, is by no means a sure one; for a low specific gravity does not always indicate a deficiency of Cream, nor *vice versa*.

A better test than this is found in the *Lactometer*, invented by Sir Joseph Banks. This consists of a tube usually eleven inches



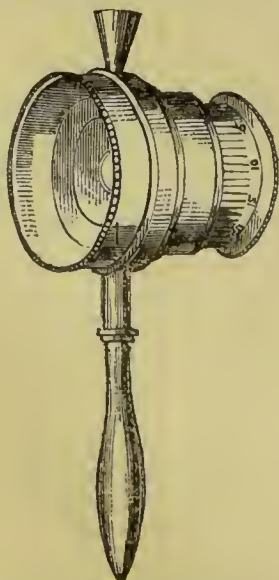
long and half an inch in diameter; ten inches of this are graduated in tenths of an inch—that is, in hundredths of the whole. The tube is to be filled with Milk, and set aside for twelve hours; the Cream ascends to the surface, and its amount is determined by the thickness of the stratum formed, and which is ascertained by noting the number of degrees or tenths through which it extends. Some lactometers resemble test tubes in shape, and, like them, are supported in racks; they are usually graduated only on the upper two inches; others are provided with feet, and are graduated throughout the whole length: as the quantity of Cream not unfrequently exceeds 20 per cent. the tubes should in all cases be graduated for nearly their whole length.

The construction of the Lactometer is shown in the accompanying woodcut, representing a rack holding four of these instruments, by which may be ascertained at the same time the comparative richness of as many different samples of Milk. The dotted lines in the cut indicate the per centage of cream, in four different samples of milk, after standing four hours. In making such comparative observations upon a number



of samples, it should be borne in mind that Cream forms more quickly in cold than in warm weather; therefore they should all be of the same temperature, and should be put into the tubes, and remain there the same time.

It is an impression with some that the addition of a little warm water to Milk increases the quantity of Cream; this is a mistake; it merely facilitates and hastens its formation and separation. It should be known that the amount of Cream yielded is no positive criterion of its quality, as some Milks are rich in cream but deficient in Caseine and Sugar, and *vice versa*; and besides this, although most of the Cream, which is identical with the fatty matter, rises to the surface, yet part remains diffused through the liquid; so that we do not by the above means ascertain the entire quantity of fatty matter present. When it is necessary to do this, drop a little Acetic Acid into a measured quantity of Milk; the acid precipitates the caseine, and this, in separating, becomes incorporated with nearly all the butter, the two together forming the curd; this is to be collected in a weighed filter, by means of blotting paper, and the fat dissolved out with ether; the etherial solution is next to be evaporated in a weighed capsule, with a gentle heat; the weight of the residual fat being ascertained by the increased weight of the capsule. This method of determining the richness of Milk in butter is more accu-



rate than than by the lactometer. Another means of ascertaining this is by the *Lactoscope*, invented by M. Donné of Paris.

This instrument consists of a kind of eye-

glass, composed of two tubes standing one within the other, furnished with two parallel glasses, which approach each other up to contact, and separate more or less from the other at will by means of a fine screw; a little funnel, destined to receive the Milk, is placed at the upper part; on the opposite side is placed a handle, which serves to hold the instrument. The tube which screws within the other forms the part to which the eye is applied; it is marked with divisions to the number of 50, the figures which indicate the richness of the Milk, of which the sample should be taken from the mass, and not from the surface only; it is therefore best to agitate the Milk a little previous to taking it. Fill the funnel, and turn the ocular tube from right to left, until the liquid has flowed between the plates of glass and collected at the bottom; then turn the tube in a contrary direction, from left to right, and look through it until the flame of a taper or candle can be distinguished. At this point, stop, and give a slight rotary movement to the instrument, until by a little manipulation the light is just about being lost to view, without going beyond the moment when it is altogether obscured. That is the time when it is necessary to stop, and read the figure of the division to which the arrow corresponds, which we may suppose to be 25.

A great deal of nicety is required in the management of this instrument; but a little practice will enable one to use it without difficulty, and obtain the most accurate results; care must be taken to clean it perfectly after using it, and to avoid breathing on the glass of the eye-piece while doing so. The light should be placed about three feet from the observer, who may assure himself of the accuracy of the instrument by adding a very small quantity of water or even gruel to the Milk. Twenty degrees of water are sufficient to change the transparency of the liquid. The following table indicates the richness of different kinds of Milk, after the degrees which they show in the Lactoscope:—

Milk of Cows, giving 5 per cent. of Cream, shows from 40 to 35.

The same, giving from 5 to 10 per cent., shows from 35 to 30.

The same, giving from 10 to 15 per cent., shows from 30 to 25.

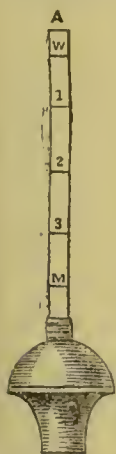
The same, giving from 15 to 20 per cent. (this is very rich), shows from 25 to 20.

Milk of the Ass, of good quality, shows from 50 to 80.

Milk of the Goat, rich, shows from 10 to 15.

Milk of Woman, rich, shows from 20 to 25; medium, 30 to 35; weak, 40 to 45.

It must be remembered that the Lactoscope has regard to only one element of Milk, and does not estimate the amount of Sugar or Cheese; as far as it goes, we believe the greatest confidence may be placed in its indications.



We have now to describe an instrument of a far more simple construction, which the general fraud of dilution with water has called forth; it is termed "the Milk-tester." It is the invention of Mr. George, and may be had at No. 2, Adelphi Arcade, London. The printed directions for use are as follows:—Place the instrument in water, and drop on the rings until it floats at the line marked W; then place it in the Milk to be tested, and its quality will be at once shown. For instance, should the instrument float at any point between the divisions, it must be allowed

for accordingly; thus if between the M and the 3, the Milk would be  $3\frac{1}{2}$  to a  $\frac{1}{2}$  water; between the 3 and the 2,  $2\frac{1}{2}$  milk to  $\frac{1}{2}$  water, and so on.

If this instrument does not possess the recommendation of being perfectly accurate, it is yet sufficiently so for all ordinary purposes, and is cheap and easy to use. Milk being so important an article of diet, both with children and grown persons, but especially the former, we may well be excused for devoting so much space to a consideration of its nature and quality; the purity and goodness of that of the cow, especially in large towns, where so many partake of it, and where the temptations to adulterate it are greater than elsewhere, is of paramount importance in a hygienic sense. The "Lancet Sanitary Commission," which has done such good service to the public, as to merit the title of a National Institution for the General Good, has turned its attention to this among other dietary articles, and given this result of the analysis of twenty-six samples of Milk obtained from sellers in various parts of London:—1. That twelve were genuine; 2. That of these, two showed a deficiency of cream; 3. That eleven were adulterated; 4. That this adulteration consisted, in all cases, of water, the per centage of which varied from ten to fifty per cent., or one-half of the article; 5. That in no case was chalk, size, gum, sheep's brains, or any of the other substances occa-

sionally used for the adulteration of milk detected.

This result is more favourable than could have been expected from the belief generally entertained of the gross sophistication to which Milk is constantly subjected at the hands of vendors; but it does not necessarily follow that, because the Milk is not actually adulterated, it is therefore good and pure, its quality as a nutrient depends so much upon the food and state of health of the animal that yields it, that the greatest attention ought to be paid to this. By means of railways this article of general consumption is now sent into the large towns from the country, where the cows have plenty of fresh air and good pasturage. Hitherto—and it is still too much the case—they have been crowded together in close places, out of which they never stir, and which are perfect Augean stables of filth and corruption; fed upon grains and other stimulating food to increase their productive powers, and in a constant state of disease. How could, or how can, wholesome Milk be obtained from such animals? Let our readers take care that they are supplied with Milk from a country dairy, especially if they have children who require much of this nutrient.

**MILK ABSCESS.** A tumour in the breast occasioned by a redundancy of milk first secreted after childbirth. See *Abscess, Breast*.

**MILK FEVER** (in Latin *febris lactea*). An aggravated form of the excitement which takes place at the onset of lactation; its first symptoms are increased heat of the system, preceded by shivering, and sometimes accompanied with vertigo and slight delirium; these are followed by severe headache, thirst, dry tongue, quick pulse, throbbing of the temples, and intolerance of light.

The *cause* may be a cold, or over-heating the apartment, too stimulating a diet, or any obstruction to the flow of milk from the breast.

The *treatment* should be spare diet, perfect tranquility, subdued light, cooling drinks, and saline aperient medicines; the head should be kept somewhat elevated, and bathed with cold water or evaporating lotions: if the symptoms should become worse in spite of this, apply half-a-dozen or more Leeches to the head, and put the feet in a warm Mustard bath. Most lying-in women have more or less of this fever, which is no doubt an effort of nature to rouse the hitherto dormant mammary organs to secrete a proper quantity of milk; if, however, it is not checked the arterial



action runs too high, and no milk at all is secreted.

**MILK TEETH.** A name given to the first set, which are shed in childhood. See *Teeth*.

**MILLEPEDES** (Latin *mille*, a thousand, and *pes* or *pedis*, a foot). Slaters or Woodlice, called by children Pea-bugs, because they roll themselves up into a ball like a pea, when touched, were formerly used as remedial agents, being killed by the vapour of spirits of wine; they were employed in humoral asthma, and dropsy.

**MILLET** (in Latin *milium*). The grain of the *Panicum Miliaceum*, and other species of the natural order *Gramineae*, has been long used as an article of diet in India and America, as well as in Italy, Germany, and several parts of Europe. The Italian and German Millet seeds are largely imported



into this country, but they are chiefly used as food for birds. One advantage possessed by the plant is, that it will grow and produce far more largely than wheat, in the poorest soil. It makes a nourishing farina, and is a good thickening for soup, but not, perhaps, so good as pearl barley or sago.

**MILT.** This is the flat, rounded mass, of a livid colour, situated behind the large end of the stomach; its use is not clearly understood. See *Spleen*.

**MIMOSA.** The name of a genus of leguminous plants remarkable for having leaves which recede from the touch, and close together, hence the name "sensitive plants," which has been applied to them.

It was formerly supposed that from one of them, the *Mimosa Nilotica*, the gum acacia was obtained, but it is now well ascertained that this gum is the produce of two or three other species. See *Acacia*.

**MINDERERUS SPIRIT.** A popular name for the Liquor of Acetate of Ammonia, which is very commonly given as a diaphoretic in febrile affections and colds; it operates beneficially without increasing the animal heat; diluents should be taken freely with it, to promote its operation on the skin, otherwise it will be likely to pass off by the kidneys; the surface of the body too should be kept warm while taking it; the dose is from 2 to 6 drachms, largely diluted, about every six hours; it is generally taken in Camphor Mixture, and often combined with Sweet Spirits of Nitre. It makes an excellent evaporating lotion for sprains, bruises, and inflamed surfaces; and also a good collyrium, mixed with about three parts of Rose Water. See *Ammonia*.

**MINERAL WATERS,** are waters impregnated with mineral substances, such as iron, salt, sulphur, &c., so strongly as sensibly to affect the taste and smell. They are usually of a higher temperature than ordinary water, and are much taken by invalids for various diseases. They are, generally, classified under the several heads of Acidulous, Carbonated, Chalybeate, Hot, Saline, and Sulphureous. The composition and special qualities of the principal Mineral Springs of this country and the Continent are spoken of under their several alphabetical heads.

**MINIM** (Latin *minimus*, least). The smallest liquid measure, generally regarded as about equal to one drop. The fluid drachm is divided into 60 minims. From the same root we have also *minimum*, which is opposed to *maximum*, and means the lowest degree, or least appreciable point or intensity of disease.

**MINT.** Peppermint, Pennyroyal, and Green, or Spearmint, are the members of the extensive tribe of plants called Mint, which are of the greatest medical utility; their particular properties and uses are described under their several heads: of the Mints generally we may observe that they owe their carminative properties to their pungent, essential oils, and that they belong to the natural order *Labiatae*.

**MISCARRIAGE.** The expulsion of the foetus from the uterus within ten or twelve weeks after conception is, generally, so called; if this takes place after the above-named period, and within six months, it is termed *Abortion*; if during any part of the last three months, before the completion of the

natural term, it is *Premature Labour*. See *Abortion*.

MISERERE MEI (Latin for pity me). A name sometimes applied to the colic, from the pain it creates.

MISTURA (Latin *misceo*, to mix). A mixture, or extemporaneous liquid preparation. See *Mixtures*.

MITHRIDATE. An old medical composition having opium for its basis; it is now replaced by the confection of *Opium* (which see).

MITRALIS (Latin *mitra*, a mitre). A mitre-shaped valve which guards the left ventricle of the *Heart* (which see).

MIXTURE (Latin *mistura*). This is a medicinal compound in the fluid form, in which remedies are very commonly administered: it may be composed of soluble or insoluble ingredients, or a portion of both, and is distinguished from a solution, by containing that which is only mechanically combined with the liquid or vehicle, whatever it may be, and not dissolved. To make most Mixtures properly, it is necessary to rub down the ingredients together in a mortar, adding the fluid gradually, this is especially the case if it contains any light powder, such as Magnesia or Rhubarb. When there are heavy ingredients, such as Chalk or Bismuth, a little powdered Gum Acacia or Mucilage will be required to keep them in suspension. Beside the Mixtures prescribed extemporaneously by the physician, there are many set forms in the Pharmacopœia, of which these are the principal:—Acacia Mixture, which is simply Water and Gum; Almond Mixture, sometimes called Almond Emulsion, made with Conserve of Almonds and Water; Ammoniacum Mixture, made by rubbing down Gum Ammoniacum with Water; Barley Mixture, made with Pearl Barley, Figs, Raisins, Liquorice Root, and Water; this is identical with the Compound Decoction of Barley; Camphor Mixture, which is Camphor dissolved in Water; the same with Magnesia; Chalk Mixture, composed of Prepared Chalk, Sugar, Mucilage, and Cinnamon Water; Compound Gentian Mixture, made with the Infusion of Gentian and Senna, and Tincture of Cardamums; Guaiacum Mixture, made with Gum Guaiacum, Sugar, Mucilage, and Cinnamon Water; Compound Iron Mixture, made with Myrrh, Carbonate of Potash, Sulphate of Iron, and Rose Water; Scammony Mixture, Gum Scammony rubbed down with Milk; Spirit of French Wine Mixture, Brandy, Yolk of Egg, Sugar, and Cinnamon Water, given in cases of great prostration;

for the doses and uses of these several Mixtures the reader is referred to the several heads of their chief ingredients.

MOBILITY (Latin *mobilis*, moveable). A term applied by Dr. Cullen to excessive susceptibility to impressions; one of the affections of nervous persons. It is, also, with its opposite *immobility*, used to signify the state of a joint or limb.

MODIOLUS (diminutive of the Latin *modus*, a measure). It is applied in surgery to the bony pillar in the centre of the cochlea, which is encircled by the *lamina spiralis* (see *Ear*); and to the crown, or saw, of the *Trepan* (which see).

MOFFAT. A village about sixty miles from Edinburgh, which has a sulphurated spring, somewhat more saline, but less gaseous, than that of Harrowgate. It acts only as a diuretic, but is efficacious, although in a minor degree, in the same cases as the above-named waters.

MOLARES (Latin *mola*, a mill-stone). The double or grinding *Teeth* (which see).

MOLASSES or MELASSES (from the Latin *mel*, honey). The uncrystallizable part of the juice of the sugar cane, which is separated from the sugar during its manufacture. See *Treacle*.

MOLE (Latin *mola*, a mill-stone). This is, 1st, a brown macula or spot, generally, but not always, congenital; 2nd, a morbid product of conception, not, as is commonly supposed, consisting of a false germ, but a fleshy, or ligated substance, found in the uterus, which has seldom, if ever, any connection with an impregnated condition of the organ. This should be clearly understood, as suspicious, injurious to character, arise very frequently from the growth of this "false conception," as it has been erroneously termed.

Moles in the skin, or as they are commonly called Mother-marks, are beyond the reach of surgical treatment; or, if they ever can be removed, it is only at the risk of causing a greater disfigurement; therefore, they had better be left alone, the more especially as they not unfrequently answer a useful end, that of positive identification. See *Nævus*.

MOLLITES (Latin *mollis*, soft). Softness, or softening; hence, we have *Mollites cerebri*, softening of the brain, called by the French *Ramollissement du cerveau*; *Mollites ossium*, a morbid softness and flexibility of the bones, sometimes called *Fragilitas ossium*.

MOLLUSCUM (same root as above). Applied to a wen or moveable tumour, which has but little sensibility, and is often elastic



to the touch, containing atheromatose or pap-like matter. This is the third genus of the *Tubercula* of Bateman. See *Tubercles*.

**MONARDA.** *Horsemint.* The *Monarda Punctata*, of the natural order *Labiata*, is a plant used in American practice. Like the Mints generally it is aromatic, and yields a volatile oil, which is highly stimulant, and has a powerful odour; it is given as a car-



minitive in doses of 2 or 3 drops, on a lump of sugar; externally it acts as a rubefacient; the leaves and twigs of the plant, like those of spearmint, are made into an infusion, which is given in flatulent colic. The Horsemint has also been recommended as an emmenagogue.

**MONESIA.** Under this name a drug has been introduced into Europe; it is in the form of thick brown cakes, and is undoubtedly a vegetable extract, probably from a species of *Chrysophyllum*, of the natural order *Sapotaceæ*: it possesses astringent properties, and has in France been successfully employed in internal discharges, such as leucorrhœa, menorrhagia, diarrhœa, &c. It has also been given in chronic bronchitis, and applied externally in powder to atonic ulcers; the dose is from 2 to 10 grains, frequently repeated.

**MONKS-HOOD.** A highly poisonous plant whose tall spike of purple, hood or cap-shaped blossoms, is frequently seen in gardens. See *Aconite*.

**MONOMANIA** (Greek *monos*, and *mania*, madness). A species of insanity in which the mind wanders upon one subject only.

The disease may be either acute or chronic, and take any form, horrible or absurd. It may lead to homicide, suicide, arson, or theft; and, induce one, in every other respect in possession of his full senses, to commit the most dreadful, or ridiculous acts. See *Insanity*, *Mania*.

**MONOCULUS** (Greek *monos*, single, Latin *oculus*, the eye). A bandage formerly used for lachrymal fistula, and diseases of the eye, was so called.

**MONORCHID** (Greek *monos*, and *orkos*, a testis). Having but a single *Testicle* (which see).

**MONSTRUM.** Applied to an unnatural birth or production; a monster; a *lusus nature*.

**MONS VENERIS** (Latin *mons*, a mountain). The eminence over the *os pubis* in women.

**MORBID GROWTHS** (Latin, *morbus*, death). These may consist of structures which naturally form part of the body, or, which are quite foreign to it in a healthy state; they may be owing to mal-secretion by the cells of the structure, or to a supply of unhealthy material by the blood. Their nature is commonly determined by the structures in which they are found; thus they resemble serous membrane in the pleura, cartilage in the joints, and muscle in the uterus. One of the most common of the morbid growths is fat, which is often deposited in situations where it seriously obstructs the formation and passage of the secretions, the course of the circulation, or some other organic function necessary to a healthy state of existence: hence we have atrophy, internal ulceration, softening of the bones, and other dangerous results. These, with calculi, or stone in the bladder; albumen and sugar in the urine, constituting Bright's disease; ossification of the heart, and calcareous degeneration of the muscles, are all owing to morbid growths which may be termed *natural*; those of an *unnatural* structure, generally arise from a morbid state of the blood itself, the ulceration of whose constituent elements causes the formation of cells in the parts nourished by the blood, differing from those of the natural shape and character; if the mischief is confined to the particular structure first affected, we call the morbid growth non-malignant; but if it extends to the surrounding structures, pursues the course of the absorbents, and attacks the lymphatics, then it is malignant deposit. We have an example of the former in *Tubercle* (which see); this occurs in scrofulous subjects; and of the latter in that fearful disease *Cancer* (which see).

**MORBILLI** (Latin *morbillus*, being the diminutive of *morbus*, a disease). This is a term borrowed from the Italian, among whom *il morbo* (the disease), signifies the plague. It is the term by which continental writers generally designate the *Measles* (which see), and *Rubeola*. From *Morbus* come, also, a great number of old, or foreign, names of particular diseases: thus we have *M. aphrodisius*, syphilis; *M. areuatus*, or *arguatus* (from *arens*, a bow), so called from one of the colours of the rainbow, jaundice; *M. cadacus*, epilepsy or falling sickness; *M. interpellatus*, a disease attended with irregular or uncertain paroxysms; *M. coruleus*, cyanosis, or blue disease; *M. cardiacus*, typhus fever; *M. coxarius*, disease of the hip; *M. gallicus* or *M. rabulus*, frambæsia or yaws; *M. niger*, melæna, or black disease; *M. pedicularis*, lousy disease; *M. pilaris*, hair-worm disease; *M. regius*, king's evil; *M. sitibundus*, diabetes; *M. sudatorius*, sweating sickness; *M. pathetici*, depraved appetite, &c. &c. All these will be found under their several heads.

**MORBOSUM AUGMENTUM**. An old name for a preternatural growth or formation of new matter, generally of an unhealthy or morbid character.

**MORIA** (Greek *moros*, foolish). A defect of the understanding, fatuity, or foolishness.

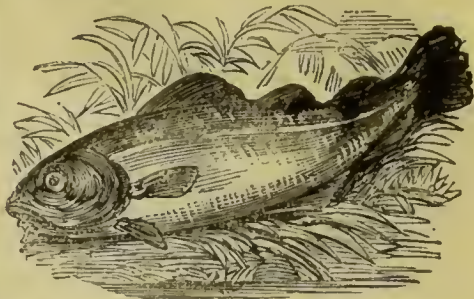
**MOROXYLIC ACID** (Greek *moron*, the mulberry, and *xylon*, wood). An acid produced from the bark of the mulberry tree; its salts are called *Myroxalates*. See *Mulberry*.

**MORPIO**. A name for the *Pediculus pubis*, or Crab Louse, which burrows in the skin, chiefly of the groins and eyelids; it is the result of contact with persons already affected, and can only be eradicated by the utmost attention to cleanliness: an unguent of the mercurial preparation called White Precipitate, rubbed into the part, will destroy the insect, as it will the common louse.

**MORPHIA**. An alkaloid discovered in opium in combination with a peculiar acid termed meconic. It is in Morphine that the narcotic principle of opium resides. Its medicinal salts are:—the *Acetate*, prepared by adding to four parts of Morphine, dissolved in eight parts of distilled water, acetic acid of the specific gravity of 1.075, until the mixture gives a slight tinge of red to litmus paper; the solution is then evaporated to dryness, and the salt reduced to a powder: the dose of which is from a  $\frac{1}{4}$  of a grain to 2 grains in solution. The *Sulphate* is prepared by pouring dilute sulphuric acid into an alcoholic solution of Morphine, and evaporating, &c., as above. Dose, same as

the *Acetate*. The *Citrate* and *Muriate* are prepared by the direct combination of these constituents; they have not come much into use, and, therefore, need not be more fully noticed here. See *Opium*.

**MORRHUE OLEUM**. The oil derived from



the liver of the *Gadus morrhue*, or common Codfish. See *Cod Liver Oil*.

**MORSULUS** (Latin for a little mouthful). A name sometimes applied to a form of medicines like drops or lozenges, which have no regular shape.

**MORTARS AND PESTLES**. Our readers are too well aware of the nature and uses of these conveniences for the preparation and compounding of medicines to render any lengthened description of them necessary; the materials of which they are made are iron, bell-metal, or brass, marble, Wedgewood-ware, or glass. For pills, which require much hard beating, a metal Mortar



is the best, but for most other purposes nothing possesses such advantages of combined strength and cleanliness as the Wedgewood; for acids and corrosive substances, glass should be used, care should be taken not to hammer or pound in such, for although tolerably strong, it is only suitable for the grinding or mixing operation. A Mortar capable of holding a pint is the most convenient size for family use; those put into medicine chests are generally too small. Our cut represents the best



form for the metal, 1; and the Wedgewood Mortar, 2.



**MORT DE CHIEN** (French for Dog's Death). A name of the Spasmodic Cholera, thought by some to be a corruption of the Indian or Arabic name of the disease, the former of which is *Mordezým*, and the latter *Mordekie*, both signifying "the death blow."

**MORTIFICATION** (*mors* or *mortis*, death, and *fió*, to become). A generic term denoting the death of any part of the body. It may arise from a division of the nerves, a deficient supply of blood, or other causes; but, most commonly, it is the result of inflammation. When this latter is the case, we term it *Inflammatory*, *Humid*, or *Acute* Mortification; otherwise, it is *Dry*, *Chronic* and sometimes *Idiopathic* Mortification; this is most frequently found to affect aged persons, and is, therefore, called *Gangræna senilis* (See *Gangrene*), which is synonymous with Mortification, although it is sometimes spoken of as but a stage of the disease. Impeded circulation of the blood may proceed from general debility, or from local injury, or mischief of some kind affecting a part; pressure upon a large vessel, like that caused by a tumour; exhausting fatigue or sickness; intense heat or cold; or eating unwholesome grain, such as diseased rye (See *Ergotism*). All these may result in Mortification, to which some parts of the body are much more liable than others. When an inflamed part becomes unusually hot, painful, hard, and tense; when the colour of the skin becomes first dark and angry-looking, then mottled, then greenish, and raised in small blisters filled with thin fluid, there can be little doubt that gangrene has seized upon the part which exhibits these symptoms, and, unless checked in its advance, will extend to some vital part. In this case, if a medical man

has not been called in, let him be summoned immediately; in the meantime, apply warm bran poultices, or lotions of Chloride of Soda, or Lime; procure rest for the patient by means of opiates, if necessary, and support the strength with good nourishing broths and soups, &c.

If Mortification, however, has fairly set in, nothing but amputation of the limb affected will save the patient, and this should be performed quickly, or it may be too late. When there is much sloughing—which will be pretty sure to follow the blisters above mentioned, there must be warm poulticing to get away the discharge and dead matter, and, after this is removed, cold water dressing will probably suit best. Very commonly, in spite of all the efforts that can be made to support a patient under such circumstances, he will rapidly sink, especially if the disease manifests itself anywhere near to a vital part. Soon does the constitution exhibit signs of collapse; the face and hands become cold and clammy, the former has a pinched and miserable look; there is a quick, feeble pulse, a brown furred tongue, depressed or disordered mental faculties, and involuntary performance of the natural functions. But with all this there is no pain; this passes away with the inflammatory stage of the disease, and in its place a deadly torpor steals through the frame, chilling and sealing up the fountains of life.

**MOTHER SPOTS** (in Latin, *macula matronæ*.) Spots and discolourations of the skin, which show themselves at, or soon after, birth. See *Moles*, *Nævus*.

**MOTION**. In animal physiology we distinguish three kinds of motion: 1st, the *voluntary*, which is the spontaneous act of the individual will, as dictated by the brain: 2nd, the *involuntary*, or *excited*, such as the closure of the larynx on the contact of acrid vapours; or of the pharynx on that of food; and various other muscular actions, which appear to depend on nervous susceptibility: 3rd, that of *irritability*, as the action of the heart, &c., which may be increased or diminished according to the greater or less degree of stimulus applied.

**MOTOR** (Latin, *moveo* to move). A mover, hence the terms *motores oculorum*, the movers of the eyes, the name of the third pair of nerves. The metals were denominated by Volta *motors* of electricity, from their property of transferring the electrical fluid to each other by simple contact, and the process which thus takes place was called by Sir H. Davy *electro-motion*.

By the term *motor-change*, we understand the metamorphosis of some of the elemen-

tary constituents of the muscular fibres, chiefly by combination with the arterial blood, which is constantly going on, and is a consequence of the movement of the muscles, whether voluntary or involuntary, giving rise to expenditure of the substance of the fibres.

**MOULD OR MOULDINESS.** A peculiar plant propagated by seeds infinitely small; from the circumstance that mould has been found in the interior of an addled egg, Reaumur has inferred that these seeds can make their way through the pores of the shell. This vegetable mould, sometimes called *humus*, and which Braconnêt had stated to resemble *Ulm*, has been called by Berzelius *Geine* or *Geic Acid*, from the Greek *geinos*, earthy.

**MOUTH** (in Latin, *os*, *oris*). The cavity in which the tongue and teeth are contained, which serves as a receptacle for the food which is to be conveyed to the stomach, and by means of which articulate sounds are rendered possible. The parts which are immediately connected with it are the lips, the upper and lower jaws, the palate and tonsils, and the fauces generally; it is lined by the mucous membrane, which stretches from the tongue to the lower jaw; and is surrounded by the salivary glands, which open into ducts in various parts of the cavity, and supply it with moisture. The diseases to which this part of the human frame is liable, are spoken of under their several heads.

**MOXA.** This is a remedy of Chinese origin, being a mode of applying cautery to any part, by igniting a piece of German tinder, or inflammable fungus, and fixing it to the diseased spot until it burns away the cuticle. It is employed as a counter-irritant in gout, rheumatism, and some other disorders. The true Chinese Moxa is made with the leaves of the *Artemisia Latifolia*, and other plants. In Europe, the stalk of the great sunflower is sometimes used for this purpose.

**MUCILAGE** (from the Greek *muka*, mucus). An aqueous solution of gum, frequently used for keeping heavy bodies suspended in liquid, or oily ones intimately blended, and as a demulcent in diseased and irritated states of the chest and bronchial passages; in the Pharmacopœia we find the Mucilages of *Acacia*, *Barley*, *Starch*, and *Tragacanth*, all useful forms of preparation, to which allusion is elsewhere made. *Mucic Acid* is an acid first obtained from the sugar of milk, and hence called *sacculactic*; but since it was ascertained that all gums yielded it, in greater or less degrees, it has been termed as above.

**MUCUS.** Greek for the thick glairy secretion which forms on the surface of the mucous membranes. When examined under the microscope, it is found to consist of minute granular particles, like those which compose pus or matter; if the result of inflammation, it is thin and acrid, as we find it in the discharge from the nose in cold or influenza. It is a combination of albumen and alkali, and is not naturally viscid, this property being a sign of irritation of the membrane from which it exudes; it is therefore, when in this state, symptomatic of disease, which we may understand is going on in the intestines, when we observe thick slimy mucus in the evacuations.

**MUCOUS MEMBRANE.** Is that which lines certain internal portions of the body, such as the mouth, nose, eyes, throat, air passages, and bronchi; the gullet, stomach, and bowels, to the anus, or vent; also, the kidneys, bladder, &c. This membrane is covered on the surface with what is termed the epithelium, a series of flattened cells, in which the mucus is secreted. See *Membrane*.

**MUDAR.** The name of a shrub much used in India on account of its alterative, diaphoretic, diuretic, and purgative properties: it is the *Asclepias*, or *Calatropa Gigantiea*, of botanists, and belongs to the natural order *Asclepiaceæ*; its milky juice



has been used as a substitute for gutta serena. *Mudarine* is the active principle of the Mudar root, remarkable from the circumstance that its solubility in water decreases with the increase of temperature.

**MULBERRY.** This tree belongs to the natural order *Urticaceæ*; it is the *Morus Nigra* of botanists, and a native of Persia, although extensively cultivated in most



parts of Europe and America; its leaves are chiefly used as food for the silkworm, they are also eaten by cattle; its fibre is converted into cordage, paper, and textile fabrics; its wood is used for cabinet work,



and it yields a pleasant acidulous fruit, which is eaten fresh, made into a preserve, and wine, and also by fermentation into vinegar, and by distillation into alcohol. Of the Mulberry there are several species; but the above is with us the most common; the fruit is very wholesome, if eaten fresh, but it very quickly suffers decomposition, and changes its character; it should always be taken within twenty-four hours of being gathered. The juice is sometimes used as a refrigerent in fevers, and as an expectorant in coughs; it is slightly laxative, and keeps best as a syrup.

**MULBERRY CALCULUS.** A kind of urinary calculus, consisting of oxalate of lime, and so named from its rough and tuberculated surface. See *Calculus*.

**MULBERRY EYELID.** An old name for prurient ophthalmia, so called from the discoloration of the lid which it causes.

**MULSUM.** A kind of wine sweetened with honey, or hydromel. See *Mead*.

**MULTI-CUSPIDATI** (Latin, *multus* many, and *cuspis* a spear. The name of the three last molars, so called from their having several tubercles. See *Teeth*.

**MULTIFIDUS SPINÆ** (Latin, *multus*, and *fido*, to cleave). The name of a mass of muscles, which are placed obliquely from the transverse to the spinous processes. They have been described as three sets of muscles, by the names, *Transverso-spinalis colli*, *T.—s. dorsi*, and *T.—s. lumborum*.

**MULTUM.** The technical name of a com-

pound of Quassia and Liquorice, employed by brewers for economising malt and hops. The *Hard Multum*, or *Black Extract*, with which they impart an intoxicating quality to the beverage, is prepared from *Cocculus Indicus*, (which see).

**MUM.** A kind of malt liquor made with the malt of wheat.

**MUMPS.** The popular name in this country for *Cynanche parotidea*, or *Parotitis*. In Scotland, it is called *Branks*. This disease, which is a contagious epidemic, consists of inflammation of the salivary or parotid glands, which are situated on each side of the lower jaw. It commences with slight febrile symptoms of a general character; very soon there is redness and swelling at the angle of the jaw, which gradually extends to the face and neck near to the glands, these sometimes become so large as to hang down a considerable distance, like two bags. But little medical treatment is required for this disease when at its height; the patient, from sheer inability to move the jaw, must live chiefly on slops; and it is well for him to be kept low, unless very delicate, in which case, a little good broth, or beef tea, should be given. If there is much pain, the throat should have hot fomentations applied, and perhaps two or three leeches. Mumps is not a dangerous disorder, unless the inflammation should be turned inwards, in which case, it will probably affect the brain or testicles.

**MUNGO.** The native name for the root of *Ophiorrhiza Mungos*, which is supposed to be a specific for the bite of the most



deadly serpents. In India and Ceylon it is employed as an antidote to that of a mad dog. It is very questionable, however, whether the plant, of which we give a cut, possesses the virtues attributed to it.

MUNJEET. A species of *Rubia Tinctora*, or Madder, produced in Nepaul, and other districts of India. That which comes to England, is chiefly from Culeutta.

MURIATE (Latin *murias*, signifying brine). A salt formed by the union of muriatic acid with an alkaline, earthy, or metallic base; we now term it a hydrochlorate. Metallic Muricates contain either an excess or deficiency of acid, in the former case they are termed *Oxy-muricates*, in the latter, *Sub-muricates*; when in a state of dryness, they are called *Chlorides*, consisting of chlorine and the metal. The Muricates chiefly employed for medicinal purposes are those of Ammonia, Iron, Lime, Mercury, Potash, and Soda, the properties and uses of which are described under their heads. *Muriatic* or *Hydrochloric Acid*, commonly called Spirits of Salts, is procured abundantly from sea water in combination with soda and magnesia; it is a compound of chlorine and hydrogen gas, and possesses strong bleaching and antiseptic properties. It enters into the composition of the Muriated Tincture of Iron, commonly known as Steel Drops, (see *Iron*), and is administered beneficially in typhus, scarlatina, and other malignant fevers; it is given too, as a tonic, combined with vegetable bitters; is used in the form of gargles in putrid sore throat, and injections in gonorrhœa when *ardor urinae* becomes troublesome; 2 or 3 drops to an ounce of water is sufficiently strong for the purpose. Given after copious evacuations it prevents the generation of intestinal worms, for this purpose it should be taken in Infusion of Quassia. The common dose of this acid is from 15 to 20 drops; it should never be taken in a leaden or pewter spoon. See *Acids*.

MURIDE (Latin *muria*, brine). The name given to bromine.

MUSCÆ VOLANTES, or *Visus muscarum*, An appearance of motes, or small bodies, floating before the eyes, indicating a diseased or excited state of the optic nerves; it is the common precursor of *Amaurosis* (which see), also *Eye*.

MUSCLES. Properly so called, these are the fleshy portions of the animal frame; it is by means of the muscular fibres that its various motions are effected; all flesh being, in fact, Muscle devoted to this purpose. These Muscles are bundles of fibres of a tubular structure, bound together by what

is called areolar tissue; they are endowed with the property of contractibility, which operates under the influence of certain stimuli; but they contract after different manners, some doing so simultaneously, some alternately, and others successively. Some act in accordance with, and some altogether independent of, the will, and their strength and endurance depends chiefly upon the amount of nervous energy brought to bear upon them. A Muscle never gets tired, however violently or continuously it may be exercised; the exhaustion is in the brain, not in the mechanism which it sets to work. The action of the heart and lungs is unceasing, and this is produced by muscular contraction and expansion, and this is independent of the will; therefore it causes no sense of weariness. When we desire to walk or run, or take any kind of exercise, it is the brain that, through the nerves, stimulates certain Muscles into action and keeps them so, until the desire for such action ceases; in this case we have fatigue and a sense of exhaustion supervening, sooner or later, according to the violence of the exercise, or the amount of nervous energy which the person possesses, and this is his physical strength. A bird will continue to beat the air with its wings for an immense time without the necessity for rest; here we have partly an exercise of the will, and partly an involuntary motion, hence fatigue does not come so soon as if the act of flying depended wholly on the former. We can measure the strength of a Muscle by the weight which it will bear without breaking, but neither this, nor its size and firmness, will give us any idea of its working power in the animal economy; this must depend entirely upon whether its movements are voluntary or involuntary.

The Muscles, then, are as Wilson describes them, "the moving organs of the animal frame: they constitute, by their size and number, the great bulk of the body, upon which they bestow form and symmetry. In the limbs, they are situated around the bone, which they invest and defend, while they form to some of the joints a principal protection. In the trunk, they are spread out to enclose cavities and constitute a defensive wall, capable of yielding to internal pressures and again returning to its original position.

Their colour presents the deep red which is characteristic of flesh, and their form is variously modified to execute the varied range of movements which they are required to effect.



Muscle is composed of a number of parallel fibres placed side by side, and supported and held together by a delicate web of areolar tissue; so that, if it were possible to remove the muscular substance, we should have remaining a beautiful reticular framework, possessing the exact form and size of the Muscle, without its colour and solidity. Towards the extremity of the organ the muscular fibre ceases, and the fibrous structure becomes aggregated and modified, so as to constitute those glistening fibres and cords by which the Muscle is tied to the surface of bone, and which are called *tendons*. Almost every Muscle of the body is connected with bone, either by tendinous fibres, or by an aggregation of these fibres constituting a tendon; and the union is so firm, that, under extreme violence, the bone itself breaks rather than permit the separation of the tendon from its attachment. In the broad Muscles the tendon is spread out so as to form an expansion called *aponeurosis*, from the Greek *apo*, long, and *neuron*, a nerve, meaning a nerve widely spread out.

Muscles present various modifications in the arrangement of their fibres, in relation to their tendinous structure; sometimes they are longitudinal and terminate at each extremity in tendon, the entire Muscle being *fusiform*, or spindle-shaped; in other situations they are disposed like the rays of a fan, converging to a tendinous point, and constituting a *radiate* Muscle. Again they are *penniform*, converging like the barbs of a feather to one side of a tendon, which runs the whole length of the Muscle, or *bi-penniform*, converging to both sides of the tendon. In other Muscles the fibres pass obliquely from the surface of a tendinous expansion spread out on one side to that of another spread out on the opposite side. When composed of penniform or bi-penniform fasciculi they are termed *compound* Muscles.

Besides the above names given to Muscles, on account of their peculiarities of form, there are others which have reference to their situations, as the *tibialis*, &c.; others, to their uses, as *abductors*, &c.; others, to their directions, as *obliquans*, &c.; others, to their properties, as *contractibility*, &c.; others, to their source of action, as *voluntary*; others, expressive of their attachment, and others, again, of their divisions, as *biceps*, *triceps*, &c.

In describing a Muscle, a surgeon speaks of its attachment to the bone as its *origin* or *insertion*; the first term being generally applied to the more fixed or central attachment, that is the point towards which the motion is directed, while the latter is as-

signed to the more moveable point, or that which is most distant from the centre; these terms are, however, somewhat arbitrary, and not always applicable, as there are many Muscles which pull equally towards both extremities.

It may be interesting, as well as useful, to enter a little more fully into the structure of Muscle, which, as before stated, is composed of bundles of fibres enclosed in an investment or sheath of areolar membrane which is continuous with the framework of the muscular fibres, each bundle of which, termed a *fasciculus*, is composed of a number of smaller bundles, and these of single fibres, which from their minute size, and independent appearance have been called ultimate fibres; although microscopic examination informs us, that each one of these is itself a fasciculus made up of ultimate *fibrils* enclosed in an extremely delicate sheath called the *myolemma* or *sarcolemma*; the appearance of one of these bundles of fibrils, as magnified, is shown in the accompanying cut.

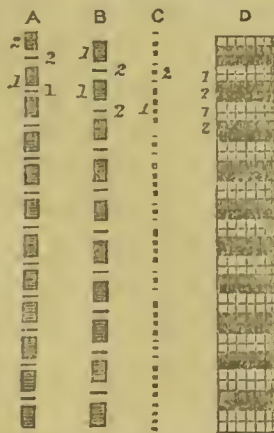
Of the ultimate muscular fibre there are two sorts in the animal economy, viz., that of voluntary or animal life, called striated Muscle, and that of involuntary or organic life, termed smooth Muscle: the former is known by its size, its uniformity of calibre, and especially by its transverse markings, which occur at minute and regular distances; it also presents markings or striæ in a longitudinal direction, which indicate the existence of fibrillæ within the sheath, or myolemma, which is thin, transparent, and elastic. Those who have examined minutely into the subject state, that the ultimate fibres, or fasciculi, are polyhedral, or many-sided, in shape, this form being due to mutual pressure; and that the sizes differ in different classes, genera, and even sexes of animals. The ultimate fibrils of animal life, we are further informed by these close examiners, are beaded filaments, presenting a regular succession of segments and constrictions, the latter being narrower than the former, and the component substance probably less dense; the arrangement of a bundle of these fibrils in an ultimate fibre, is such that all the segments and constrictions correspond, and in this manner give rise to the alternate light and dark lines of the transverse striæ. The



beautiful regularity of this arrangement may be seen by the diagram on page 142, in which B represents the ultimate *fibril* of animal life, and C the union of such in an ultimate *fibre*.

It has been observed, that besides the more usual separation of the latter into fibrils, it breaks, when stretched, into transverse segments, corresponding with the dark lines of the striæ, and consequently with the constrictions of the fibrils; when this division occurs with the greatest facility the longitudinal lines are indistinct, or scarcely perceptible. It has also been observed, that in the substance of the ultimate fibre, there exist minute oval or circular disks, frequently concave on one or both surfaces, and containing somewhere near the centre, one, two, or three minute dots, or granules. These corpuscles are the nuclei of the cells out of which the muscular fibre was originally developed; these corpuscles are brought into view only when the muscular fibre is acted on by a solution of one of the milder acids, as the Citric.

We have mentioned that the ultimate fibril of animal life, although cylindrical, becomes polyhedral from pressure, when forming part of an ultimate fibre or fasciculus. It measures in diameter 1-2000th of an inch, and is composed of a succession of cells connected by thin flat surfaces; these cells are filled with a transparent substance, which has been called *myoline*; it differs in density in different cells, and this circumstance imparts a peculiarity of character to certain of them, and causes the structures which they form to assume, under the microscope, a very beautiful and remarkable appearance, such as is here represented.



Let us explain a little more clearly how this is caused. When a fibril in its passive state is examined, there will be seen a series

of dark oblong bodies, separated by light spaces of equal length; now the dark bodies are each composed of a pair of cells, containing the densest form of myoline, and are hence highly refractive, while the transparent spaces are constituted by a pair of cells, containing a more fluid myoline. When the fibrils are collected together so as to form an ultimate fibre, the appearance of the cell is altered; those which look dark in the single fibril, that is, the most refractive, being ranged side by side, constitute the bright band, while the transparent cells of the single fibril are the shaded striæ of fibre. When the ultimate fibril is very much stretched, the two highly refractive cells appear each to be double, while the transparent space is evidently composed of four cells. This explanation may enable us to understand the foregoing diagram, to which we will now direct our attention: A is the ultimate muscular fibril, in a state of partial contraction; B the same, in a state of ordinary relaxation, in which we will suppose it to measure 1-2000th of an inch in diameter; C is the same fibril, stretched to the 1-5000th of an inch round; D represents the ultimate fibres, and shows the manner in which the transverse striæ are produced by the collocation of the fibrils. In 1, 1, we have a pair of the highly refractive cells, which form the dark parts of the single fibril A; but the bright parts of the fibre D; in the stretched fibril C each cell appears to be double. 2, 2, is the pair of less refractive cells, light in the single fibril, but dark in fibre; the transverse septum between these cells is very conspicuous; and in C two other septa are seen to exist, making the number of transparent cells four.

Very different from all this in its form, and arrangement, is the ultimate fibre of organic life, which Wilson, to whom we are indebted for the above diagrams, and the substance of our remarks thereon, describes as "a simple homogenous filament, much smaller than the fibre of animal life; flat, smooth, and without transverse markings. It is of a fusiform shape, and various length, and consists of a thin external membrane, blended with a soft, homogenous, or finely granular contained substance." This cut represents muscular





fibres of organic life, D from the urinary bladder, and E from the stomach, both magnified 600 times, linear measure; the diameter of these two fibres midway between the thick parts or nuclei, being 1-4750th of an inch.

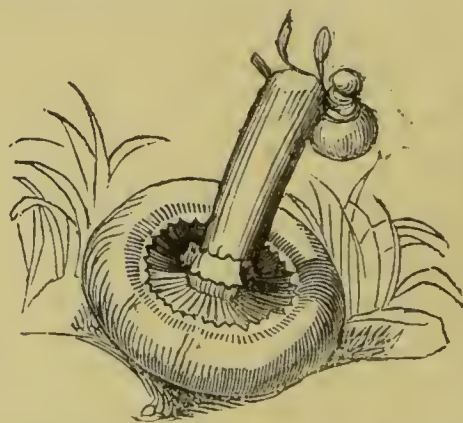
This kind of Muscles is distributed very abundantly in the animal frame, and is met with in all situations, where a distinct contractile power, independent of mere elasticity, is required.

Many examples will occur to the readers of this work, of the peculiar action of certain Muscles; for instance, in the descriptions given of the *Eye*, the *Hand*, the *Leg*, and other parts, whose movements they effect in a very distinct and remarkable manner. The chief peculiar property of these organs is their contractibility, by virtue of which they are enabled to exert so great an influence in the mechanical structure of the animal frame; every variety of form and arrangement which they present is found to correspond exactly with the especial purpose which each has to fulfil; and generally, as well as individually, they afford striking indications of the wisdom and skill of their divine contriver and maker. The absolute power exerted by a Muscle in contracting, is commonly much less than its efficient power, a great part of its force being lost by its being inserted obliquely on the lever which it has to move; or on the distance of the Muscle from the centre of motion; or on the resistance which other Muscles and the adjacent tissues present, &c. But it is constantly found, that where power is lost, there is a corresponding gain of velocity, extent of motion, compactness of force, or convenience and readiness of action, to compensate for this loss.

The injuries to which the Muscles are subject, are chiefly of a mechanical nature, such as *Cuts*, *Ruptures*, *Sprains*, or *Strains*, (all of which see); they are sure to be followed by a greater or less degree of inflammation, and especially are they liable to this in a gouty or rheumatic person, or one whose habits are such as to necessitate a vitiated state of the circulation; if a severed Muscle be excluded from the air, but little inflammatory action will probably ensue, and lymph is merely poured out for the purpose of cementing together the ends by what is termed "union by the first intention." If, however, the air have access to the torn or cut surface of fibrous or muscular tissue, there will, most probably, even in healthy persons, be high inflammation, which going beyond the point necessary for union, ends in granulation and the ordinary discharge of matter; (see *Wounds*).

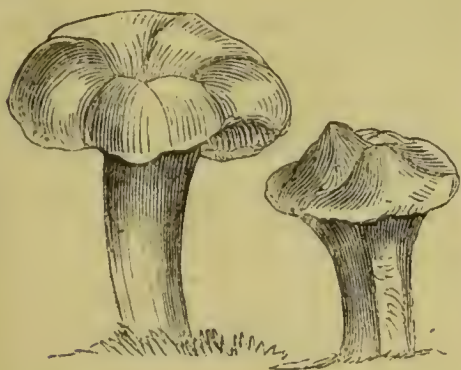
Rheumatic inflammation of the fibrous tissues often affects both old and young, but chiefly persons under thirty years of age, (see *Rheumatism*), which is very often confined to certain Muscles, producing the affections known as *Lumbago*, *Wry-neck*, &c. (which see), also *Cramp*, *Colic*, *Hiccup*, and that contraction of the circular fibres of the gullet, which produces a sense of choking when food is presented, and sometimes an inability to swallow anything but the smallest morsels; this is common in hysterical women.

MUSHROOMS. The edible members of the Fungus tribe are so called; they are largely eaten with us, and still more so in some other countries: we generally esteem them wholesome, and, to some extent, nourishing; the large, flat Mushroom which grows in moist meadows, and which botanists term *Agaricus Campestris* is the best; it is dis-



tinguished from the poisonous kinds by having a smooth upper surface, whose outer skin readily peels off, exposing the fibrous structure beneath; in the young plant this outer skin is white, but it turns brown as the plant advances in age; the laminae, as the under radiating parts are called, are first pink, then light brown, and gradually darken into a colour approaching to black; the footstalk is short and thick, being seldom more than two inches high, even when, as is sometimes the case, the table which it supports is eight or nine inches in diameter. The young Mushrooms, which are called "buttons," are best for pickling, the middle-sized ones for stewing or broiling, and the larger for making ketchup. The Champignon (*Agaricus Pratensis*), is another wholesome kind; although of smaller size, it is similar to the common sort in every other respect, except in the colour of the laminae, which are of a delicate cream tint.

at that early period of growth when the others are pinkish white; they grow on dry upland pastures and parks, and are very liable to be mistaken for *Toad-stools* (which see).



**MUSK** (in Latin *moschus*). An odoriferous secretion found in the peculiar bags or follicles of the male of the Musk Ox, called by naturalists *Moschus Moschiferus*: the best comes from China. It is chiefly valued as a perfume, but it possesses stimulant and antispasmodic properties which render it very useful to the medical practitioner, to whom, however, its high price denies a very extensive use. In low cases of typhoid and other fevers, it has been employed with great advantage, rousing the pulse and exciting the nervous system without heating. In chronic spasmodic diseases, such as epilepsy and hysteria, also, it may be recommended; the dose in substance is from 5 to 20 grains every three or four hours. It is sometimes combined with Ammonia, the Carbonate, or Aromatic Spirit; sometimes with Ether and Camphor.

**ARTIFICIAL MUSK** (*Moschus factilius*), is prepared thus:—to 1 ounce of Fetid Animal Oil, prepared by distillation, add  $\frac{1}{2}$  an ounce of Nitric Acid, digest for 10 days, then add 1 pint of Rectified Spirit and digest for a month; it has much of the peculiar odour of the real secretion, but none of its medicinal properties.

**MUSSEL.** The *Mytilus edulis*, a kind of shell fish, which is much eaten by the poorer classes, although it sometimes acts as a poison upon the system. It has been thought that the Mussels disagreed with those who ate them, because they feed upon beds impregnated with copper, but the more probable reason is that, as they are extremely liable to become soon decomposed, they are often eaten in this state; or it may be that being very rich and fat they cause an excess of bile. Whatever

the cause may be, the best remedy is an emetic administered as rapidly as possible,



to be followed by a brisk purgative. See *Poisons*.

**MUST.** The expressed juice of the grape; it contains water, sugar, a peculiar matter which changes into gluten by contact with the air, mucilage, super-tartrate and sulphate of potash, tartrate of lime, and muriate of soda. The expressed juice of apples, and pears is also called Must.

**MUSTARD** (in Latin *sinapis*). The seeds of the Black, and White Mustard (*Sinapis*



*Nigra*, and *S. Alba*, of the natural order *Cruciferae*), contain an acrid principle, and a fixed oil, which give to them a pungent



smell and taste, and stimulant and earminative properties. In weak and torpid conditions of the system, they are sometimes given to excite the stomach, and stimulate the nervous energy; given whole, they have this effect, and act as a laxative; in powder they act as a speedy and powerful emetic, and are, therefore, generally given in cases of poisoning. Mustard, however, is chiefly used externally; it is an excellent stimulant and rubefacient, and has generally a good effect when applied over the seat of internal inflammation, especially when the seat of such is the chest, belly, or throat. The best way to make a Mustard poultice or sinapism, is to mix together equal parts of the best flour of Mustard, and of Wheat, add sufficient boiling water to make up a very stiff paste, which spread thickly on a piece of linen rag of the required size; put a piece of thin muslin over it, and then apply it to the part affected, allow it to remain on about twenty minutes, or half-an-hour, if it can be borne, so that it reddens the skin without producing a blister, then take it off, and sprinkle the part, should it heat and burn much, with flour. Mustard lotions and ointments are sometimes used for local friction in paralysis, and as applications for chilblains and other indolent swellings. In cases of paralysis, poisoning, or torpor, from any cause, a Mustard footbath to rouse the system may be beneficially employed. The dose of the flour of Mustard, as a stimulant, is from 1 scruple to 2 drachms; as an emetic, about  $\frac{1}{2}$  an ounce or more; of the Seeds, about a drachm may be given.

Vinegar is sometimes added to a sinapism, but if the Mustard is good, this is not required.

**MUTITUS** (Latin *mutus*, dumb). An inability to articulate; *Dumbness* (which see).

**MYDRIASIS** (Greek *mydros*, moist). A preternatural dilation of the pupil, generally accompanied by moisture. See *Eye*.

**MYELITIS** (Greek *myelos*, marrow). Inflammation of the substance of the brain or spinal marrow, as distinguished from *meningitis*, specifically, or *encephalitis* generally. See *Brain*.

**MYLABRIS**. A genus of insects, two species of which, *M. variabilis*, and *M. chiconii*, are said to have been used as blistering applications in the same way as the cantharides.

**MYLO** (Greek *myle*, a millstone). Names compounded of this word are applied to various muscles whose attachments are near the grinder teeth; thus, we have *M.-hyoidæus*, a triangular muscle, arising from the

inside of the lower jaw, between the molar teeth and the chin, and inserted into the *os-hyoides*, which it raises, and so depresses the jaw.

**MYOCEPHALON** (Greek *myia*, a fly, and *kephale*, the head). A small prolapsus of the iris, forming a brownish tumour as large as a fly's head. See *Eye*.

**MYODESOPSIA** (Greek, *myia*; *eidos*, likeness, and *ophis* sight). The imaginary appearance of floating bodies in the air, a common symptom of *Amaurosis* (which see). The technical name for these objects is, *muscæ volitantes*, *mouches volantes*: they are commonly called *notes*.

**MYOIDES** (Greek *myos* a muscle, and *eidos*, likeness). A muscular expansion of the neck, sometimes called *Platysma myoides*.

**MYOLOGY** (Greek *myos*, and *logos* a description). A description of the *Muscles* (which see). From the same root comes *Myotomy*. Dissection of the muscles.

**MYOPIA** (*myo*, to close, and *ops*, the eye). Short or near sight, which occasions one to contract the eyelids on looking at any object. It is also called *Myopiasis*, or mouse sight; and *Paropsis propinqua*. *Myosis* signifies an unnatural contraction of pupil. See *Mydriasis*.

**MYRICIN**. The ingredient of wax which remains after digesting in alcohol; the name is derived from that of the plant called *Myrica Cerifera*, which yields much wax from its berries.

**MYRISTICA**. A genus of plants, of which the typical family is the *Myristiceæ*, or Nutmeg tribe. The bark abounds in an aerid juice, which imparts a red stain, and the rind of the fruit has a caustic property. See *Nutmeg* and *Mace*.

**MYROBALANUS** (Greek, *myron* ointment, and *balanos*, an acorn). Dried fruits of the plum kind, the produce of several kinds of *Terminalia*. Four kinds are spoken of in some old medicinal works, viz.: 1st, the *Belleric*, the fruit of the *T. Bellerica*, whose bitter kernels are considered to be intoxicating; they yield an oil which encourages the growth of hair; the bark abounds in a gum like that of the acacia: 2nd, *Chebulic*, fruit of the *T. Chebula*, which grows in the Indian forests; it is very astringent, and may be given like catechu, in diarrhoea, and aphthous ulcerations: 3rd, *Citrine*, obtained from the *T. Citrina*, acts as a gentle purgative: 4th, *Indieum*, which is merely the unripe fruit of the last species. All these fruits were held in high reputation by the ancients, but they are discarded from modern practice.

**MYROXYLON** (Greek *myron*, a liquid perfume, and *xylon*, wood). The name of a genus of resinous plants, belonging to the order *Leguminosæ*, in which we find the *M. Peruiferum*, or Peruvian Balsam tree, which the natives of South America call *Quinquino*: the juice, which is procured by incisions in the tree, is called White Liquid Balsam. That which is sold in the shops is of a dark colour, and is obtained by boiling the twigs. See *Balsam*.

**MYRRH** (Greek *myron*, an ointment). The gum resin produced by the *Balsamodendron Myrrha*, a small tree belonging to the natural order *Terebinthaceæ*; possesses tonic



and antispasmodic properties, and acts upon mucous membrane as a balsamic, checking the secretions when excessive. It is given in atonic dyspepsia, in chlorosis, in amenorrhœa, and in chronic bronchitis, often in conjunction with Aloes, and Chalybeates. The Tincture is used in gargles, and the powdered Gum in dentrifices; the latter is also sometimes applied to foul ulcers. The dose of the Powder is from 10 to 30 grains: the best form of exhibition is the Tincture, in combination with Aloes, Rhubarb, Galbanum, Assafoetida, and Sulphur of Iron; its official preparations are the Tincture of Myrrh, Compound Iron Mixture, and Pill of Aloes with Myrrh; the latter of which is a good laxative for dyspeptic patients.

**MYRTIFORM.** The name of the *carunculae*, which remain after the laceration of the hymen, so called from their supposed resemblance to the myrtle.

**MYRTUS P. AMER.** The scientific name of the Allspice tree, a native of South America, where it is called *Pumake*, and also

of the West India Islands; hence the name Jamaica Pepper, sometimes applied to it. See *Allspice*.

**N.** This letter in prescriptions denotes *numero*, in number.

**NÆVUS** Latin for a natural mark, spot, or blemish on an infant; generally attributed to the influence of the imagination of the mother, and therefore called *Nævus maternus*, mother's mark; sometimes *Macula maturæ*, mother-spots. These discolorations of the skin have been made by Bateman the second genus of his order *Macule*; the following varieties are distinguished: *N. araneus*, the spider-like stain; *N. foliaceus*, the leaf-like; *N. cerasus*, the cherry stain; *N. fragarius*, the strawberry; *N. morus*, the mulberry; *N. ribes*, the currant; *N. rubus*, the blackberry stain. To these may be added the Claret or Port-wine stains, represented by the flat and purple nævus, which Plenck calls *Nævus flammeus*; and also those which resemble a slice of bacon or other flesh. See *Spilus*.

Then we have what are called the *Vascular Nævi*, consisting of 1, the *arterial*, which are enlarged cutaneous arteries; 2, the *Capillary Nævi*, which are dilated capillary vessels; 3, the *Sub-cutaneous Nævi*, probably identical with the preceding, but situated more deeply, and unattended with discoloration; this becomes the *Complicated Nævi*, when it attains a large size, and involves the subjacent texture or organs; 4, the *Venous*, or *Varicose Nævi*, which may also be sub-cutaneous, consisting of a few minute veins crowding there towards a centre, which may probably include enlarged capillaries; or it may be the larger veins, full and turgid, standing out from the skin, and resembling varicocele; 5, the *Increasing* or *increasing Nævus*, which is distinguished from the stationary kinds by the manifest advancement in size.

**NAILS.** Like the hair, the Nails may be regarded as a prolongation of the epidermis or outer skin; they consist of flattened cells filled with horny matter, which is supplied by a number of papillæ, or vascular points situated in a fold or matrix of the true skin, which is about two lines in depth; the fresh matter which is continually developed, pushes forward the old, and that causes the growth of the Nail, which if not frequently cut would grow to a very inconvenient length. At its first formation the Nail is extremely thin, but as it advances, it gradually acquires thickness by the addition of fresh layers of cells to its under surface, which cells are formed by papillæ which also serve to retain the



Nail in its place. Much of the beauty of the hand depends on the state in which the Nails are kept. Durlacher says, that, "according to European fashion, they should be of an oval figure, transparent, without specks or ridges of any kind; the semilunar fold or white half-circle should be fully developed, and the pellicle or cuticle which forms the configuration around the root of the Nails, thin and well defined, and, when properly arranged, should represent as nearly as possible the shape of a half-filbert. The proper arrangement of the Nails is to cut them of an oval shape corresponding with the form of the finger; they should not be allowed to grow too long, as it is difficult to keep them clean; nor too short, as it allows the ends of the fingers to become flattened and enlarged by being pressed upwards against the Nails; and gives them a clumsy appearance. The epidermis which forms the semicircle around, and adheres to the Nail, requires particular attention, as it is frequently dragged in with the growth, drawing the skin below the Nail so tense as to cause it to crack and separate into what are called agnails, or, more popularly, hag, or hang-nails. This is easily remedied by carefully separating the skin from the Nail by a blunt, half-round instrument. Many persons are in the habit of continually cutting the pellicle, in consequence of which it becomes exceedingly irregular, and often injurious to the growth of the Nail. They also frequently pick under the Nails with a pin, penknife, or the point of sharp scissors, with the intention of keeping them clean, by doing which they often loosen them, and occasion considerable injury. The Nails should be cleaned with a brush, not too hard, and the semicircular skin should not be cut away, but only loosened without touching the quick, the fingers being always dipped in tepid water, and the skin pushed back with a towel. This method, which should be practised daily, will keep the Nails of a proper shape, prevent agnails, and the pellicles from thickening or becoming ragged. When the Nails are naturally ragged, or ill-formed, the longitudinal ridges or fibres should be scraped and rubbed with lemon, afterwards rinsed in water, and well dried with a towel; but if the Nails are very thin, no benefit will be derived from scraping; on the contrary, it might cause them to split. If the Nails grow more to one side than the other, they should be cut in such a manner as to make the point come as near as possible to the centre of the end of the finger."

The latter rule, however, will not apply to toe Nails; they should be cut nearly straight across, leaving the corners, which in consequence of the pressure of the shoe, have always a tendency to grow in, as they often do, producing inflammation and ulceration, and becoming very troublesome and difficult to heal. Indeed, a bad ingrowing toe Nail is among the most troublesome of the minor cases with which a surgeon has to deal; it can seldom be entirely cured without the removal of the Nail, and when this has become firmly embedded in the flesh, it is no easy matter to extract it; then there is danger of inflammation, mortification, tetanus, and a whole train of evil consequences; there is usually a fungoid growth in and about the part of the toe where the Nail enters, and this must be destroyed by the free application of caustic; then, if the nail be scraped thin, the edge may probably be lifted out, so that a small piece of scraped lint, or carded cotton, can be placed under, and prevent its penetrating again, so as to irritate and keep up the inflammation. Most surgeons recommend the entire removal of the Nail, or of that half of it to which the ingrowing edge belongs. The following mode of treating this painful and annoying complaint has been recommended by Mr. G. M. Humphry, a medical practitioner of Cambridge, who states that he has found it successful:—"Procure a piece of silver, rolled out sufficiently thin to admit of being bent to the required shape, yet sufficiently firm to bear moderate pressure. This should be nearly the length of the Nail, from a quarter to half-an-inch wide, and bent into somewhat of an S shape, or rather  $a \sim b$ . The lower end ( $b$ ) is, by the aid of a pair of forceps, to be carried down between the overhanging ulcerated skin and the Nail, and hooked under the rough edge of the latter. The upper end ( $a$ ) is then carried outwards, and secured in that position by a strip of plaster, and a bandage round the toe. By this means, the inverted edge of the Nail and the skin are effectually kept from one another, and pressed in opposite directions. The Nail is a little elevated, and the fungoid growth very soon shrinks under the pressure of the metal, and assumes a healing aspect. After several days a marked improvement will generally be found to have taken place, when the silver may be readjusted, and allowed to remain on a longer time. Gradually the ulcer heals, and the Nail grows up in a more natural shape. It is well, however, to continue the use of the silver for some time; and after the sore is quite healed, a piece of lint, or a small

flat piece of silver, should be inserted under the edge of the Nail to prevent the tender cicatrix being fretted by it, and to keep down the skin. The patient should be directed to avoid tight shoes, and not to cut the corner of the Nail low down. In some bad cases it may be necessary to keep him quiet, or in bed, for a short time; and in a few to prepare the way for the silver by the insertion of a piece of lint, secured by a strip of plaister. By this plan, patients may be instructed to carry out their own cure; the size and exact shape of the piece of silver must be regulated according to the case; and some nicety of manipulation is required to insinuate it between the ulcerating skin and the Nail, and to hook it under the edge of the latter, without inflicting much pain in the exquisitely tender state of the joint.

The common employment of the hand on which they grow, will generally somewhat modify the shape and appearance of the Nails; but sometimes they are indicative of constitutional tendency; this is especially the case in the long transparent curved Nails of the consumptive.

**NANCEIC ACID.** An acid procured from sour rice, and other aceseent vegetables, by Braconnet, who named it as above in honour of his native town, Nancy.

**NAPHTHA** (a word of uncertain derivation, probably from *nafuta*, to push or throw out, as pustules.—to boil, or be angry). A bituminous liquid, which is thin, volatile, and inflammable, emitting a strong and very peculiar odour. It is a pure hydrocarbon, being a compound of 36 of carbon with 5 of hydrogen. It occurs in springs on the shores of the Caspian Sea, being formed probably by the action of heat upon beds of coal; and is also obtained by distillation from petroleum, as well as by dry distillation from wood, along with acetic acid, and tarry products. That, which is called the Medicinal Naptha, or Wood Spirit (*Spiritus Pyroxylicus*) has been employed as a stimulant, expectorant, and diaphoretic, in phthisis and chronic bronchitis, and also in gout and rheumatism, but with no very marked results; it has also been recommended in diarrhoea and dysentery; the dose is from 10 to 20 drops, three times a-day, in Milk or Mucilage; the dose may be gradually increased, if nausea is not produced; in bronchial affections it is sometimes inhaled. *Naphtha Nitri*, and *N. Fitrioli*, were old names for Nitric and Sulphuric Ether. *Naphthaline* is a compound obtained by distillation from coal tar; it is a white crystallizable substance, consisting of hydrogen and carbon, ex-

tremely volatile, and dissolving readily in alcohol, or ether, and combining with Sulphuric Acid, forming an acid which has been called the *Sulpho-Naphthalic*.

**NARCOTICS** (Greek *narke*, stupor). Medicines which induce sleep or stupor—sometimes called *Hypnotics*. This class includes anodynes, but not properly sedatives, because although in full doses they diminish the activity of the nervous system, and so produce sleep, yet they are also capable, if given in small and repeated doses, of exciting the nervous system, which sedatives will not. The following are the principal narcotics which are used in medical practice:—Aconite, Belladonna, Camphor, Conium (Hemlock), Hyoscyamus (Henbane), Indian Hemp, Lactucarium (Lettuce), Morphia, Opium, Poppy, Stramonium. They are all dangerous medicines, for one who is not well acquainted with their uses and effects, to meddle with; a reference to their several heads will show in what cases, and how they may be given.

The *Narcotico-Irritants* differ from the simple narcotics in having a direct action on the spinal marrow and nerves, as indicated by paralysis and convulsions; they also affect both the brain and alimentary canal; the chief poisons of this class are—Cocculus Indicus, Colehium or Meadow Saffron, Digitalis or Foxglove, Hellebore, Nux Vomica, and Strichnine; the poisonous Mushrooms, Aconite, Belladonna, and Conium ought also to be included.

The simple *Narcotic Poisons* are chiefly Opium and its preparations, Alcohol and Ether, although under this denomination all those Narcotics previously mentioned might be classed; for symptoms of poisoning by these and modes of treatment. See *Poisons*.

**NARCOTINE** is the active principle of opium; it was formerly called *Salt of Derosne*; and *Narcine* is a principle discovered by Pelletier in opium, being identical with *Morphine* (which see).

**NARIS.** (Latin for the nostril; plural *nares*).

**NASUS** (Latin for the nose), hence *nasal* belonging to the nose, and *naso-palatine* applied to nerves, &c. See *Nose*.

**NATES** (Latin for the buttocks). The name of the upper pair of the *tubercula quadragemina* of the brain; the lower pair is called the *testis*.

**NATRON.** Impure or native carbonate of soda; it is sometimes called mineral alkali, from being found in mineral seams or crusts; it is of two kinds, the common and the radiated. See *Soda*.



**NAUCLEA GAMBIR.** A plant of the natural order *Rubiaceæ*, which yields the Malayan drug *Gambier*, similar in its properties to catechu or kino, if it be not identical with the former of these useful astringent substances.

**NAUSEA** (Greek *naus*, a ship). A term now commonly applied to sickness of the stomach, a loathing or tendency to reject, without actual vomiting, although its original signification was *Sea-sickness*.

The sensation of Nausea is usually referred to the stomach, and is no doubt commonly due to causes connected with that organ only; yet very frequently the feeling is sympathetic, having its origin in the brain or the nervous system; thus we know that a severe blow on the head, a dislocation, or other injury to any part of the body, attended with severe pain, will occasion Nausea: so will horrible and disgusting sights, and sounds, and odours, or anything which affects the brain through the medium of the senses. The Nausea of pregnancy, too, appears to be purely sympathetic, and the action of emetics must be attributed rather to their influence on the nervous system, than directly on the stomach; for it has been found that they act as well when injected into the veins as when swallowed. So we find that gall-stones in the kidneys, tumours in the womb, and many other diseased conditions of the various organs, give rise to a feeling of sickness—all showing that this feeling is, in many cases, merely sympathetic. The relaxed state of the nervous, and consequently of the muscular system, which attends Nausea, is favourable to the performance of certain surgical operations, such as the reduction of dislocations, ruptures, or constrictions; hence surgeons, previous to such, often produce it artificially by the administration of tartar emetic.

The proper remedies for Nausea, of course, will depend upon the causes; if it proceeds from affection of the brain, but little can be done to relieve it; if from disorder of the stomach, free vomiting, which may be easily excited by warm water and a little Ipacacuanha, or merely tickling the fauces with a feather, or a brisk purgative, will afford relief; if occasioned by some nervous shock to the system, a glass of Sherry Wine or a little Brandy, or some other nervous stimulant. In any case, effervescing draughts made with Carbonate of Soda and Lemon-juice will be grateful, and probably effectual; if other means fail, a Mustard Plaister to the pit of the stomach may be tried; or Creosote, in drop doses, rubbed down with a little Sugar or Gum; or a Mixture like

this—Hydrocyanic Acid, 12 drops; Acetate of Morphine, 1 grain; Carbonate of Soda, 1 drachm, in Water, 6 ounces: take a tablespoonful every three hours. A drop of the above acid, or of Creosote in Soda Water, is also likely to be of service. A reclining position is best for the patient; and perfect quietude, both of body and mind, especially when the affection has a nervous origin.

**NAVEL.** The centre of the lower part of the abdomen, being the point where the umbilical cord passes out of the fœtus; this cord is a collection of vessels by which the fœtus of an animal is attached to the placenta, and communicates with the parent, receiving all necessary nutriment through this channel previous to its independent existence; the arteries and veins of which the cord is composed are slightly twisted upon each other, and are capable of considerable extension without giving way. When the child is born, this navel-string has to be severed and tied; and in a short time it sloughs and comes away, leaving the indentation in the belly, which we commonly call the navel. See *Labour*, *Rupture*, *Umbilicus*.

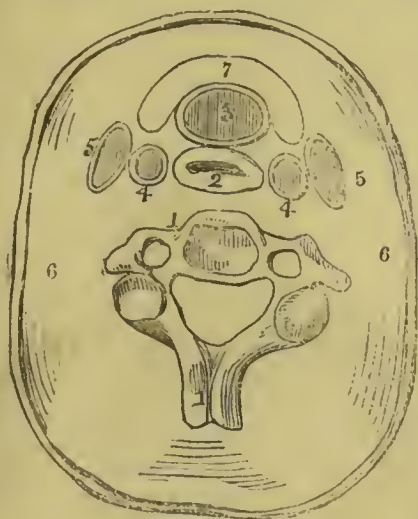
**NAVICULAR** (Latin *navicula*, diminutive of *navis*, a boat). A bone of the carpus, and also of the tarsus, is so called, because of its supposed boat-like shape.

**NEAR SIGHT.** Scientifically called *Myopia*. See *Sight*.

**NEBULA.** (Latin for a cloud). Haziness of sight, proceeding from opacity of the cornea. See *Eye*, *Sight*.

**NECK.** Between the head and the trunk of the body is situated, as our readers are aware, the Neck, one of the most important parts of the whole human frame: an isthmus over, or rather through, which, passes all the traffic of the circulatory system; all the food that nourishes; all the air that energizes and vitalizes what were else but dead and inert matter; all the countless messages that are constantly passing, and re-passing between the organs of sensation and the brain, go by this channel, and no other; cut off the communication here, and the heart would cease to pulsate, the lungs to inhale and exhale, the muscles to contract and extend, and the nerves, throughout all their minute ramifications, would lose their exquisite sensibility; in short, there would be a stoppage to life and its operations altogether. The following diagram, which represents a transverse section of the Neck, will serve to show the position of the several important organs of which it is constituted. The whole of the figure marked 1, is one of the

vertebrae, or joints of the great spinal column; in front of this lies the œsophagus, or gullet, 2, somewhat flattened, as in a state of rest; the opening marked 3, before the gullet, is the wind-pipe; on either side are the great vessels of the Neck; 4, 4, being the carotid arteries, and 5, 5, the internal jugular veins. These, with the



nerves, glands, the external jugular veins, and muscles of the Neck, are enclosed within the skin marked by the double line and figures 6, 6; in front of the wind-pipe lies the thyroid gland, 7, whose enlargement causes swelled Neck, or *Bronchocele* (which see).

The diseases to which all these organs are liable, are spoken of under their several heads, therefore we need not enlarge upon them here, but a few remarks upon the general bearings of our subject seem to be desirable; 1, as to the common form of the Neck: if short and thick, as it usually is with plethoric persons, it indicates a tendency to apoplexy; persons who have this form of Neck should carefully avoid all excesses and irregularities of living, and also any pressure upon the vessels of the throat and parts adjacent; the mere buttoning a shirt collar too tightly, will sometimes suffice to bring on an attack, and especially if the head is turned aside so as to cause strong pressure of the muscles on particular vessels, damming up, as it were, the current, and impeding the flow of blood. For this reason those who are liable to over-fulness of the veins of the head, should avoid all sudden and violent movements of that part, and on no account should they go to sleep with anything tied or buttoned round the neck; indeed, with all persons,

this part should be left free. Nurses should be cautioned against tying the night-caps of children at all tightly, as serious mischief is likely to result from this practice.

What is called *Stiff-neck* is the result of rheumatic affection of the muscles, it may generally be relieved by stimulating applications, such as Hartshorn and Oil, or Camphor and Soap Liniment, well rubbed in; it is very painful while it lasts, which it seldom does for any length of time if the proper remedies be used. (See *Rheumatism*).

*Wry Neck* is a more permanent affection, resulting from the undue contraction of one or more of the muscles on one side of the Neck, or it may be paralysis of these muscles, permitting those on the other side to draw the head down. A surgical operation is the only remedy in either case.

**NECROSCOPICAL.** (Greek *nekros*, dead; and *skopio*, to examine). Relating to post-mortem, or after-death, examination.

**NECROSIS.** (*nekroo*, to mortify). Mortification is the literal meaning of this term, which, in modern science, is restricted to caries or ulceration of the bones. It may be *simple*, as when it is confined to one bone, the patient being in other respects healthy, or *compound*, when several parts of the same bone, or several distinct bones, are affected; or when, in addition to this affection, the general health is bad. There is also a kind called *Necrosis ustilagiua*, which is that species of mortification of the bone which arises from the use of grain infected by ustilago, or blight. See *Ergotism*, also *Bones*.

**NEGRO CACHEXY.** This is the *Mal d'estomac* of the French. The propensity for eating dirt peculiar to the natives of the West Indies and Africa; we sometimes see a similar propensity manifested by females of this country affected by *chlorosis*.

**NEPENTHE.** (Greek *ne* not, and *penthos* grief). The ancient name of a drug mentioned by Homer; it was probably opium; hence in the old Pharmacopœias we find opiate pills termed *Nepenthes Opiatum*.

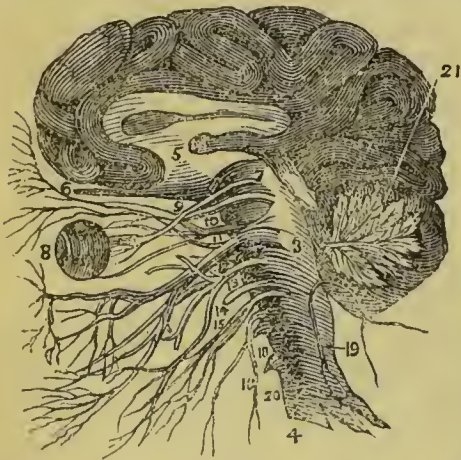
**NEPHROS.** (Greek for a kidney). Hence we have the terms *Nephralgia*, pain of the kidneys from calculus; *Nephritis*, a term applied to medicines which act on the kidney; *Nephritis*, inflammation of the kidney; *Nephrotomy*, the operation of cutting a stone out of the *Kidney* (which see).

**NEROLI** (from *neranti*, a name of the orange tree). A perfume consisting of the essential oil of orange flowers.

**NERVES** (Latin *nervus*, a string). These are cord-like substances arising from the brain or spinal marrow, and distributed to



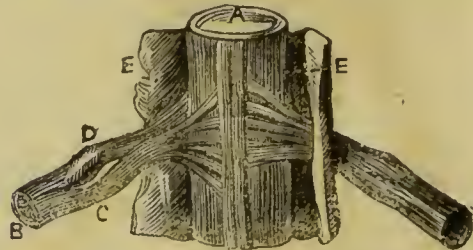
every part of the system: they are of two kinds, one white and opaque in appearance, and presenting, under the microscope, a tubular or fibrous structure, and the other of a reddish grey colour, semi-transparent, and consisting of cells or vesicles filled with granular matter; these latter kind of Nerves are but sparingly distributed in proportion to the former, and appear to form the apparatus by which the nervous force or energy is generated, to be conducted through the tubular substance to the points of action; we may shortly state, then, of these two kinds of Nerves, that one gives feeling, and the other motion; and of the whole nervous system of the human body, that it is composed of the brain and cranial Nerves; the spinal cord, and spinal Nerves, and the sympathetic Nerves. Of the structure of the brain we have already spoken under that head; of the spinal cord or marrow we may here briefly say that it is composed of a whitish substance similar to that of the brain, and is covered with a sheath or membrane, which extends from the former organ through the whole length of the spinal



column. The above section of the brain and spinal cord, shows the relation of the cranial Nerves to these organs, and to those of the senses to which they belong; 1, is the part of the brain called the cerebrum; 2, the cerebellum with its foliated portion, sometimes termed *arbor vitæ*; 3, is the medulla oblongata (oblong marrow), which forms the top of the spinal cord, which is represented by 4 and 5; the first pair, or Nerves of smell, are marked by 6; the second pair, or Nerves of sight, by 7 and 8; the third, fourth, and sixth pairs, which pass to the muscles of the eye, 9, 10, and 12; the fifth pair, Nerves of taste, which are also the sensitive nerves of the teeth, 11;

the seventh pair, passing to the muscles of the face, 13; the eight pair, Nerves of hearing, 14; the ninth, tenth, eleventh, and twelfth pairs, which pass to the tongue, larynx, and neck, 15, 16, 18, 19; and 20 indicates two of the spinal Nerves, which latter are arranged in thirty-two pairs, each arising by two roots, the one called the anterior or motor root, and the other the posterior or sensitive root.

In the next diagram, we have a representation of the spinal cord, surrounded by its sheath, marked by the letters E E, the cord itself being represented by A; B is a spinal



nerve, formed by the union of the motor root (C) and the sensitive root (D) where the knot or ganglion is seen. (For a clearer figure of this, see vol. I., page 312.)

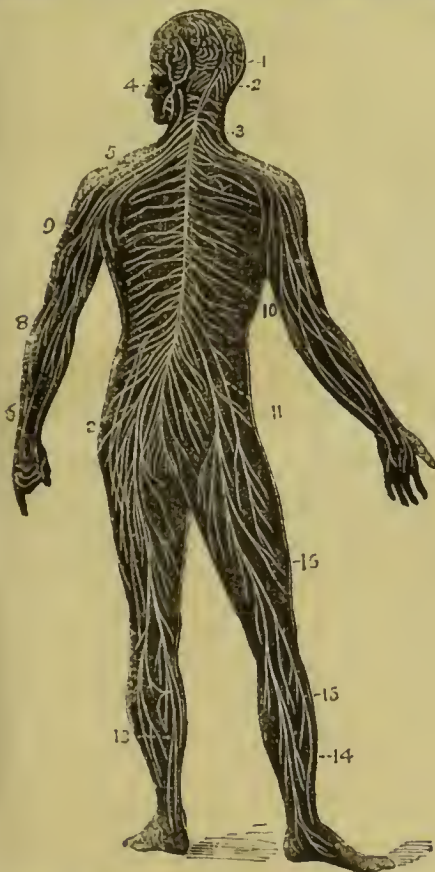
The sympathetic Nerve consists of a series of these ganglia, or knots, which extend down each side of the spinal column, forming a kind of chain throughout its whole length, communicating to both the cranial and spinal nerves, and distributing branches to all the internal organs.

These Nerves, then, are undoubtedly, the organs of feeling and sensation of every kind; through them the mind operates upon the body. The intelligent mind, whatever that may be, whose seat is in the brain, *wills* that a certain action shall be performed, and instantly through the main channel of communication, the spinal cord, the message flies, branching off here or there according to the direction in which the work is to be done, and setting in motion the muscles which perform it.

The annexed diagram will give our readers a good idea of the way in which the nerves spread and ramify throughout the body; it represents a back view of the brain and spinal cord. 1, is the cerebrum; 2, cerebellum; 3, spinal cord; 4, nerves of the face; 5, the brachial plexus or union of nerves; 6, 7, 8, 9, nerves of the arm; 10, those that pass under the ribs; 11, lumbar plexus; 12, sacral plexus; 13, 14, 15, 16, nerves of the lower limbs.

It is scarcely necessary for us here to go more deeply into the structure of the Nervous

fibres, and cells, else might we state many curious and interesting facts concerning this part of the animal economy. Some idea of their nature and the beauty of their arrangement may be seen by the foregoing diagrams. Like the veins and arteries, they



spring from great main channels, which may be compared to the stem and arms of a tree, and branch out from thence in every direction, dividing and subdividing into the most minute ramifications; so that you cannot so much as prick any part of the surface of the body but pain is felt, a sure evidence that a Nerve has been touched; nay, so much as a breeze cannot blow upon the body, nor the wing of an insect touch it, but the Nerves give information thereof to the brain, and the mind is made aware of the cause and takes its measures accordingly. Delicate strings are these Nerves of an instrument of exquisite sensibility, so delicate as to be sometimes invisible to the unassisted vision, that in many parts we are only made aware of their presence by the effects which they produce; they take cognizance of the slightest sound, the faintest ray of light,

the least change in the constitution of the air we breathe, and of the food we eat; they are the vigilant sentinels ever watching to guard the body from danger; the constant ministers to its pleasure and delight; often are they attacked and abused, their fine sensibilities deadened and perverted, so that they become subject to disease and avenge the injury done to them by a train of the direst sufferings to which humanity is liable.

This brings us to speak of *Nervous Diseases*; and first of that which is commonly designated *Nervousness*, a malady very rife among persons of sedentary habits, or those who have exhausted the brain by severe mental labour, or weakened the bodily powers by drink and dissipation. The man who leads an active, open air life, and lives temperately, is seldom or ever the victim of this distressing malady; nor the active bustling woman, who does her duty in that state of life in which it has pleased God to place her, and meets trials and troubles with cheerfulness and resignation. Nervous people are peevish and pining, having an unsound mind in an unsound body; and very commonly they have themselves only to thank for this miserable condition; they have in some way violated the laws of health generally, but not always; they may be the offsprings of a sickly and nervous stock, or they may have fallen into this state through disease, or some unavoidable overtaxing of their bodily or mental powers. In any case they are greatly to be pitied, and, if possible, relieved of these distressing symptoms, which poison the springs of earthly enjoyment, and make life a burden, rather than a blessing. Great susceptibility to external influences marks this state of nervousness, any unwonted sound or unusual sight, will set the heart palpitating, the head throbbing, the hand trembling; little troubles and difficulties are magnified, and mental emotions, of whatsoever kind, seem to overpower the mind. The resort in this case, is too commonly alcoholic stimulants, which, although they may stupify the senses, and deaden the nervous susceptibility for a time, yet produce a corresponding depression when the reaction comes on, and render both mind and body less capable of struggling against the malady. It is not to be denied but that these may be employed as remedies in nervous diseases, and with much advantage, but it is not safe for the patient to use them at his own discretion, nor must they be substituted for the more permanent means of invigorating the system, such as regular open air exer-



eise, sea bathing, cheerful society, and strengthening medicines, such as Quinine and preparations of Iron. Attention must be paid to the state of the bowels, as any irregularity there will, it is likely, tend to keep up nervous irritability, and counteract the efforts made for the patient's benefit. If purgatives are required, they should be of a warm stimulating character, such as Rhubarb with Ginger or Peppermint. Tincture of Valerian and Aromatic Spirits of Ammonia, are good nervous stimulants, and should be combined with the tonics administered. With women nervousness is commonly associated with hysteria; it sometimes attends a weakened state of the system from too rapid child-bearing, and with all occasionally merges into a state of hopeless *Hypochondriasis* (which see); also *Neuralgia*, *Tie Doreux*, *St. Vitus's Dance*, *Brow Aque*, *Sciatica*, all of which are forms of Nervous Disease.

**NERVINES.** (Latin *nervinus*, from *nervus*, a nerve). Medicines which relieve nervous disorders, such as anti-spasmodic, &c.; they are sometimes called *Neurotics*.

**NERVOUS QUINSY** is a name sometimes applied to a form of Hysteria, the *Globus Hystericus* of Dr. Darwin, and some other writers.

**NETTLE.** This is a plant too well known to need any description; it belongs to the natural order *Urticaceæ*, whose principal characteristic is the acidity of their limpid juice, owing, it seems likely, to the presence of bicarbonate of ammonia in excess, although some say it is free formic acid. The commonest species of the tribe with us



is the Great Nettle (*Urtica Dioica*) which overruns all waste places, and is a perfect pest to the farmer, invading with its winged seeds the cultivated grounds. It is questionable, however, whether its useful qualities do not more than counterbalance the disadvantages attending its prolific growth: from time immemorial its fibres have been used in the manufacture of textile fabrics, and it now appears to be coming into extensive use as a material for paper; its root yields a colouring matter; in some countries it is largely cultivated as fodder for cattle; the seeds serve to fatten fowls, and are said to infuse life and spirit into horses; the young shoots in spring supply a wholesome vegetable, when boiled like other greens; and, what is more to our purpose, the whole plant has been considered anti-asthmatic, aperient, astringent, emmenagogue, excitant, and lithontropic. A decoction of the leaves, under the name of "Nettle Tea," has been a favourite purifying and antiscorbutic drink among country people from time immemorial. Culpepper says that it "killeth worms in children," and ascribes to it marvellous efficacy, in a variety of diseases; but it has nearly dropped out of modern practice with many of the "herbs" which were reckoned "medicinal" in less enlightened ages. Still the old woman's nettle tea is not to be despised, when other and better remedies cannot be readily procured. The small Nettle (*U. urens*), often found on cultivated grounds, stings more violently than the large one; and the *U. pilulifera*, another and rarer kind, is yet more virulent in its poison, and the fresh juice of the Nettle has been found serviceable in internal hæmorrhage, especially from the lungs and womb.

**NETTLE RASH** is an eruption of the skin, similar to that produced by the sting of Nettles, consisting of solid eminences, or wheals of an oblong shape: it is characterized by a burning and tingling sensation with great irritation, heat, and itching. It is generally thrown out by some particular kind of food which disagrees with the system, such as crabs, or other shell-fish, or mackerel; certain vegetables are likely to produce it, such as mushrooms, cucumbers, bitter almonds, or strawberries. Copaiba, cubebs, valerian, or the fumes of turpentine inhaled during a house painting, are also likely to occasion Nettle Rash.

Of this disease there are two varieties, distinguished as the *acute* and *chronic*: the first runs a short and rapid course, and is attended by febrile symptoms. An emetic should be first administered if the eruption

caused by anything, it should be followed by a saline aperient—Senna Mixture, with Salts, is perhaps best, and this repeated until the bowels are freely moved; if the febrile symptoms do not subside, a mixture composed of Sweet Spirits of Nitre, 2 drachms; Liquor of Acetate of Ammonia, 1 ounce; and Camphor Mixture, 5 ounces, should be given, two table-spoonsful every four hours; a small dose of Calomel may also be required. In the chronic form, a simple diet, active exercise, an avoidance of any articles of diet likely to excite the eruption; keeping the bowels regular, by gentle aperients, combined with anti-acids; a 5-grain Rhubarb pill an hour before dinner, or a small piece of the root chewed are good remedial means; the tepid bath should be occasionally used, or sponging, to keep the skin in a healthy state; to allay the irritations, dust Starch-powder over the eruptions; or use a lotion made of Rose or Elder Flower Water in half a pint of which has been dissolved, 1 drachm of Carbonate of Ammonia, and half a drachm of Sugar of Lead.

NEURALGIA (Greek *neuron*, a nerve, and *algos*, pain). A painful affection of the nerves: when it occurs in those of the face it is termed *face-ague*, or *tie-doloreux*; when it affects the great nerve of the leg, it is called *sciatica*: other parts, such as the fingers, the chest, the abdomen, &c., are also liable to this agonizing pain, one of the most severe and wearing to which the human frame is liable; the exact nature of it is not very clear; that is to say, the origin of the disease, for although its immediate seat is a nerve, or set of nerves, yet there must be some originating cause. It can frequently be traced to some decay, or diseased growth of the bone about those parts through which the nerves pass; and in some severe cases it has been found to depend upon the irritation caused by foreign bodies acting upon those highly sensitive organs. The only symptom of Neuralgia generally, is a violent darting and plunging pain, which comes on in paroxysms; except in very severe and protracted cases, there is no outward redness nor swelling to mark the seat of the pain, neither is there usually constitutional derangement, other than that which may be caused by want of rest, and the extreme agony of the suffering while it lasts, which may be from one, to two or three hours, or even more, but it is not commonly so long. Tenderness and swelling of the part sometimes occurs, where there has been a frequent recurrence and long continuance of the pain, which leaves the patient, in most cases, as

turns and remissions, and absence of inflammatory symptoms, are distinctive marks of the disease. Among its exciting causes, we may mention exposure to damp, and cold, especially if combined with malaria; and to these influences a person with a debilitated constitution will be more subject than another. Anxiety of mind will sometimes bring it on, and so will a disordered state of the stomach, more particularly a state in which there is too much acid.

As for *treatment*, that of course must depend upon the cause; if it is a decayed tooth, which, by its exposure of the nerve to the action of the atmosphere, sets up this pain, it should be at once removed, as there will be little peace for the patient until it is: if co-existent with Neuralgia there is a disordered stomach, suspicion should at once point thereto, and efforts should be made to correct the disorder there. If the patient is living in a moist, low situation, he should at once be removed to a higher level, and a dry gravelly soil. Tonics, such as Quinine, and Iron, should be given, and a tolerably generous diet, but without excess of any kind. In facial Neuralgia, blisters behind the ears, or at the back of the neck, have been found serviceable; and, if the course of the nerve which appears to be the seat of mischief, can be traced, a Belladonna plaister, or a piece of rag soaked in Laudanum and laid along it, will sometimes give relief; so will hot fomentations of poppies and camomiles, or bran poultices sprinkled with turpentine. In very severe cases  $\frac{1}{4}$  of a grain of Morphine may be given to deaden the nervous sensibility, and induce sleep, which the patient is often deprived of at night, the pain coming on as soon as he gets warm in bed. Sir Charles Bell's remedy for obstinate cases of Neuralgia, was 1 or 2 drops of Croton Oil, mixed with 1 drachm of Compound Colocynth Pill, divide into 12. Weakly persons, however, must not venture upon taking this powerful remedy.

An application of Chloroform on lint has sometimes proved very effectual in relieving severe Neuralgic pains, and so has an ointment composed of Lard and Veratrine, in the proportion of 6 grains to the ounce.

A mixture of Chloroform and Aconite has been recommended for facial Neuralgia, the form of preparation being 2 parts of Spirits of Wine, or Eau de Cologne, 1 of Chloroform, and 1 of Tincture of Aconite, to be applied to the gums of the side affected, by means of a finger covered with a piece of lint, or soft linen, and rubbed along them; the



danger of dropping any into the mouth being thus avoided. When the pain is connected with some organic disease, as a decayed tooth, or chronic inflammation of the gums, or of the sockets, or superficial necrosis of the bone, substitute Tincture of Iodine for the Spirit in the above formula. We would caution our readers strongly against the careless inhalation of Chloroform, as a remedy for Neuralgia, which appears to be growing into a general practice; several deaths have resulted from it, the practice being to pour a little on a pocket-handkerchief, without much regard to quantity, and hold it to the mouth until the required insensibility is produced. This remedy should never be administered, except under the supervision of the medical adviser.

Persons at all liable to this painful affection should be extremely careful not to expose themselves to wet or cold; above all, not to sit in draughts; a very slight cause will often bring it on, where there is the least tendency to it.

One severe and troublesome form of Neuralgia is *Ear-ache* (which see); it often occurs in children at the time of dentition; it may be distinguished from that of an inflammatory character, resulting from the formation of an abscess, by the symptoms above described: (for *treatment*, see *Ear-ache*.)

NEURILEMMA, the sheath of a nerve; *Neurology*, the doctrine of the nerves; *Neurosis*, nervous diseases; *Neurotics*, nervous medicines; *Neurotomy*, dissection of the nerves. These are all terms which come from the same Greek root *neuron*, a nerve.

NEUTRALIZATION. A chemical term expressing the effect produced when an acid and an alkali are combined, in such proportions, that the former loses its acid properties; this process is exemplified in the preparation of the Liquor of Acetate of Ammonia, on which the acetic acid is neutralized by carbonate of ammonia, giving off carbonic acid gas in the effervescence, which takes place in the mixture of the two substances. *Neutral salts* are those in which the base is perfectly saturated with the alkali, so that they possess neither an acid nor an alkaline property.

NICOTINE. A peculiar principle obtained by Vauquelin from *Tobacco* (which see).

NICTITATIO (Latin *nictito*, to wink). Twinkling of the eyelids, commonly called *Winking* (which see).

NIGHT-BLINDNESS. This is a kind of amaurosis affecting those chiefly whose eyes are much tried by exposure to a strong glare during the day; as might be expected, it

prevails most in southern climates. Persons affected by it find their sight completely, or partially, fail them as night approaches. Sometimes the disease is congenital, proceeding from a defect in the optic nerve; in this latter case, no treatment can be of service; in the former, protecting the eye for a time from the action of strong light, and strengthening the system, if it be weakly, with tonics, good diet, and sea-bathing, will sometimes effect a cure. See *Amaurosis*, *Eye*.

NIGHTMARE. A sense of weight and oppression at the chest, felt at night, and generally preceded by a frightful dream, in which the sleeper fancies himself on the edge of a precipice, or struggling for his life with some enemy in the form of a fiend or dreadful beast, from which he makes desperate but fruitless efforts to escape. The cause is, generally, indigestion; it may be owing to distension of the stomach by flatulency, or lying in a cramped and uneasy position; sometimes it is occasioned by great mental disquietude or irritation, or over fatigue. The best remedies are avoidance of late and solid suppers, attention to the state of the bowels, and, of course, any other of the above-mentioned exciting causes.

NIGHTSHADE. A common name of the plant more usually described in medical works under the name of *Belladonna*, (which see).

NIGRITIES (Latin *niger*, black). A term applied to blackness or discoloration of a part, thus a caries is called *Nigrities ossium*, blackness of the bone.

NIPPLE. The prominent part in the centre of the areola of the mamma, or *Breast* (which see), and *Papilla*.

NIRLES. A popular name for a kind of *Herpes* (which see), and *Skin Disease*.

NITRATE (Latin *nitras*). A compound of nitric acid with any salt as a basis. Many of the Nitrates are valuable as remedial agents: the chief of them are Nitrate of Potash, commonly called Nitre or Saltpetre; *Nitrate of Soda*, formerly more used than it is now and termed Cubic, or Quadrangular Nitre; *Nitrate of Lime*, formerly called Calcareous Nitre, or, when ignited, Baldwin's Phosphorus; *Nitrate of Ammonia*, formerly termed Flaming Nitre, from its property of exploding at a high temperature; *Nitrate of Magnesia*, or *Magnesian Nitre*, combined with the former, it forms a triple salt termed *Ammoniaco-Magnesian Nitrate*; *Nitrate of Silver*, or as it is now generally called, Lunar Caustic. These preparations are more fully described under the several substances which form their bases.

**NITRE.** This, or *Saltpetre*, is the common name of the Nitrate of Potash, when melted and poured into moulds it is termed *Sal-prunella*, in old works *Crystal Mineral*; when mixed with charcoal and burnt, it leaves a residuum to which the name *Cly-sus of Nitre* was formerly applied; when mixed with carbonate of potash and sulphur in a warm mortar, it forms the *Fulminating Powder*; combined with charcoal and sulphur it is *Gunpowder*; or with sulphur and fine sawdust, constitutes the *Powder of Fusion*, of old chemical writers.

**NITRIC ACID**, commonly termed *Aqua-fortis*, on account of its corrosive qualities; it consists of 100 parts of nitrogen, and 250 of oxygen, by volume, or 40 of the former to 16 of the latter by weight. We have already spoken of the salts of this acid under the name *Nitrate* (which see), also *Acids*. *Nitro-Muriatic* and *Nitrous Acid*, are also described under the latter head. *Nitro-Leucine Acid*, is an acid formed by treating Leucine with Nitric acid, and *Nitro-saccharic Acid* is procured from the sugar of gelatine.

**NITROGEN** (Greek *nitron* nitre, and *gen-nao*, to produce). This is one of the elementary gases, and a large constituent of our atmosphere, of which it forms nearly four-fifths; it enters into numerous chemical combinations, and is one of the chief sources of nutrition to the human system; its existence in animal matters was, until quite recently, thought to constitute the great point of difference between them and the products of vegetation; modern science, however, has demonstrated that it is present in the latter substances, although in a comparatively small amount; and yet it appears likely that animals obtain their nitrogen chiefly from the vegetables on which they feed, these constituting the medium of its conveyance from the inorganic to the higher grades of the organic kingdom. Nitrogen is a gas altogether destitute of colour, taste, or smell. In a pure state it is incapable of supporting combustion or animal respiration, yet it cannot be called absolutely poisonous; it is especially necessary to the formation of muscular fibre. Of vegetable food, the greens containing gluten, have most of it. Chemists sometimes call this gas *Azote* (which see), and *Gas*.

**NOCTAMBULATIO** (Latin *nox* or *noctes*, night, and *ambulo*, to walk). A term applied to sleep-walking. See *Somnambulism*.

**NOCTURNAL EMISSIONS.** These, to which young men are sometimes especially liable, often cause more alarm than there really is

any occasion for: they are involuntary discharges of the seminal fluid, and are likely to occur when the organs are excited by dreams, or imaginations of a certain character. Unless they become frequent and profuse, there is no reason for regarding them with the morbid feeling of anxiety which they commonly occasion; still such discharges should be attended to and checked as much as possible; they, generally, indicate a debilitated system, and are in, perhaps, most cases, the result of criminal self-indulgence and venereal excesses, from which those, thus affected, should rigorously abstain. A course of tonic medicines should be taken, nothing is so good as the Muriated Tincture of Iron with Quinine, about 1 grain of the latter, with 10 drops of the former, in a little water, three times a-day. Sea bathing, or the shower bath, regular, but not excessive exercise, a sufficiently nourishing, but not a stimulating diet, with gentle aperient medicines, if required (avoiding Aloes), are the proper remedial measures.

Persons affected in this way often get into a painfully nervous state, and, conscious that they are but reaping the reward of bad practices, are ashamed to state their cases to a respectable medical man, and, therefore, fly to advertising quacks, who promise secrecy and a rapid cure. But this is a great mistake; there can be no rapid cure for involuntary seminal discharges, except it be by such powerful medicines, as will do great mischief to the system of the patient, and, probably, render his organic weakness permanent. In nine cases out of ten a temporary stoppage of the discharge even, is not accomplished by the much vaunted Balm of Syriacum, and other nostrums, so quickly as it would be by the means above recommended, or others which the legitimate practitioner might deem suitable for the peculiar case, and no after ill effects are to be apprehended from such treatment.

**NODES** (Latin *nodus*, a knot). These are enlargements of bones, chiefly those which are superficial or merely covered with skin, such as the jaw, collar bone, or shin; they arise from inflammation of the periosteum, and have generally a syphilitic origin, although this cannot be called an absolute rule, as they have sometimes existed where there could have been no such contamination of the blood. See *Bone*, *Exostosis*.

**NOISE IN THE EARS.** This may proceed from excessive sensibility of the nerves surrounding the carotid artery where it passes through the temporal bone, and may be a



symptom of general nervous excitability, or of fulness of blood in the veins of the head; in the former case Leeching or Cupping on the temple, with general depletive measures should be resorted to; in the latter, tonics and nervous stimulants will have to be taken; it is important to distinguish the cause of these noises, as in the two cases mentioned the treatment is very dissimilar.

**NOLI ME TANGERE** (Latin for Touch me not). A name given by some writers to Lupus, a skin disease, included in the seventh genus of the *Tuberculae* of Bateman; termed by Sauvages *Cancer lupus*, and by other French writers *Dartre rougeante*. A common name for it is Corroding Tetter. See *Lupus*.

**NOSCOMIUM** (Greek *nosos*, a disease, and *komeo*, to take care of). A place where sick people are tended and cared for; an hospital.

**Nose.** By many persons, we imagine, the Nose is looked upon rather as an ornamental than as a useful appendage to the face, and some we have heard complain of it as a great nuisance, always getting in the way, being injured, and requiring the constant use of pocket handkerchiefs; it is, however, an organ most essential to the wellbeing of the whole animal economy; one, and perhaps not the least important, of the "five gateways of knowledge," as Dr. Wilson has poetically termed the organs of the senses; by its aid we are enabled at once to detect the approach of danger in its most insidious form, that of gas or vapour mingled with the air we breathe; situated as it is immediately above the mouth it takes cognizance of all matters which enter there, and warns the brain or the mind, whichever we please to call it, of anything deleterious which may be combined with them. By the Nose, too, we are made conscious of the presence or approach of danger in the shape of fire, and in some conditions of life, in which the sense has to be especially cultivated, it proves the most unerring guide, and the greatest safeguard of any of the senses. Then who shall say that it does not minister largely to our pleasure, both animal and intellectual. By means of it we anticipate and so double the enjoyments of appetite, and without it all the delightful vegetable perfumes, odours which God has caused to emanate from the flowers, and which the art of man has simulated, would be inappreciable, and, therefore, useless. With the lower animals this organ is all-important; it guides them in the selection of food and drink, enables them to distinguish what is noxious from what is wholesome;

by its gratification renders food more welcome; and in many cases enables them to find out it, and their companions, where the eye and the ear would be of no avail. "So far," says Dr. Wilson, "as the nostril is a utilitarian organ to man, its services may be described in a few words. I have not seen it anywhere laid down as a general rule, but I believe it might be affirmed that we are intended to be impressed only sparingly and transiently by odours. There is a provision for this in the fact that all odours are vapours, or gases, or otherwise volatile substances, so that they but touch the inside of the nostril, and then pass away.

"In conformity with the fleeting character of odorous bodies, it is a law in reference to ourselves—to which, as far as I know, there is no exception—that there is not any substance having a powerful smell, of which it is safe to take much internally. The most familiar poisonous vegetables, such as the poppy, hemlock, henbane, monks'-hood, and the plants containing prussic acid, have all a strong and peculiar smell; nitric, muriatic, acetic, and other corrosive acids, have characteristic potent odours, and are all poisons. Even bodies with agreeable odours, like oil of roses, or cinnamon, or lavender, are wholesome only in very small quantities; and where the odour is repulsive, only in the smallest quantities. From all this, we may learn that so far as health is concerned, the nostril should be but sparingly gratified with pleasing odours, or distressed by ungrateful ones. No greater mistake can be made in sick rooms than dealing largely in aromatic vinegar, eau-de-Cologne, lavender water, and other perfumes. This hiding of one odour by another, is like trying to take away the taste of bitter aloes by that of Epsom salts. Physical comfort is best secured by rarely permitting an infraction of the rule, that the condition of health is no odour at all.

"Turning from this lowest and least attractive aspect of the sense of smell, to one which acquires a higher importance from the moral considerations which in some respects it involves, it is of interest to notice how much longer we tolerate a forbidding odour, than we relish a grateful one. Perfumes quickly pall upon us, and we loathe the concentrated essence of even the sweetest flowers. But, in their daily callings, men submit without a murmur to the most repulsive effluvia, and work even cheerfully amidst noisome gases. In the one case, we seek pleasure, and are disappointed because the nerves of smell, dulled by the first im-

pression upon them, cannot with equal sensitiveness respond to a second; in the other, for the same reason, we can suffer without discomfort the diminished sharpness of the irritation, whose sharpest provocations are its first. There is thus a physical reason why we should tire of a smell once pleasant, and grow indifferent to a smell now unwelcome. There is a moral reason also; for, in the one case, we think of pleasure, in the other of duty. The palling perfume tells us that but little of our lives may be spent in merely pleasing our senses; the tolerated infection bids us sit by the sick man's side, and set the preciousness of his life over against the little discomfort to ourselves; and so it is, that while the listless voluptuary flings away the rose, which has become scentless to him, the metal-worker labours heartily among the vapours from his crucibles and refining vessels; and the bleacher inhales, without a murmur, the fumes of his chlorine; while, most tried of all, the busy anatomist asks no one for pity, but forgets the noisome odours about him, in delight at the exquisite structures which he is tracing; and the heroic physician thinks only of the lives he can save." Thus much have we thought it desirable to adduce in relation to the sense of smell itself: let us now return to the organ of this sense, and as briefly as is consistent with clearness, point out its peculiarities of structure.

The framework of the Nose, or that part which can be seen externally, is made up

expanse of the nostrils. In the following cut we have a representation of the outer part of this organ, as viewed from the side: 1, is the nasal bone; 2, the nasal process of the upper maxillary bone; 3, the cartilage of the septum; 4, the lateral, or side cartilage; 5, 5, the alar cartilage; 6, inner portion of the same; 7, sesamoid cartilages; 8, areolar tissue of the ala; 9, aperture of the nostrils. In the next cut, we have represented a section of the nose, showing the internal parts: 1, is the division between the two nostrils, called the septum; the outer, or soft moveable parts, are termed *ala*, or wings. The nasal cavities are two



irregular spaces, extending from the nostrils, sometimes called the *anterior nares*, to the pharynx (2), where the *posterior nares* are situated. Each of these nares consists of a passage, separated from the mouth by the bony palate (3), and the ascending stages, into which they are arbitrarily divided, are called the *inferior*, *middle*, and *superior meatus*. Opening into these passages are the bony cavities called the *æthmoid* and *sphenoid cells*, the *frontal sinus*, and the *antrum*, all of which, with the whole interior of the nostrils, are lined with mucous membrane, which is soft and moist, like that of the mouth. Over this membrane are distributed the ramifications of the olfactory nerves (4), whose large stems or trunks, several for each nostril, pass upwards through apertures provided for them in the roof of the arched cavity, and terminate in the brain.

We have thus, as it were, a leafless nerve tree, whose roots are in the brain, and whose boughs, branches, and twigs, spread over the lining membrane of the Nostril (5). This nerve is termed the olfactory; when we wish to smell anything,—for example, a

of thin bone, or fibro-cartilage, as it is termed by surgeons, the latter forming entirely the



flower,—we close our lips, and draw in our breath, and the air which is thus made to enter the Nose, carries with it the odorous matter, and brings it in contact with the ramifications of the nerve of smell. Every inspiration of air, whether the mouth is closed or not, causes any odorous substance present in that air, to touch the expanded filaments of the nerve. In virtue of this contact or touching of the nerve, and the volatile scent, the mind becomes conscious of odours, though how it does so, we know as little, as how the mind sees or hears; we are quite certain, however, that if the olfactory nerve be destroyed, the sense of smell is lost, and that the nerve is largest in those quadrupeds and birds whose sense of smell is most acute.

Besides this nerve proper of smell, as the olfactory may be called, there is another known to anatomists as “the fifth,” which belongs to the sympathetic system, whose minute branches cover the lower part of the nostrils, and spread inward a considerable distance. It is on this nerve that pungent vapours, such as those of Smelling Salts, Aromatic Vinegar, and the like, make those sharp impressions with which we are all familiar.

Unless the brain and olfactory nerve be in a healthy condition, the sense of smell will be lost or impaired; and any influence which lessens the sensibility of the nervous fibre, thickens the membrane or renders it dry, impairs and lessens this sense; inflammatory action, caused by cold, does this; so does the constant irritation caused by snuff or other pungent substance too frequently applied; this also obstructs the air passages—hence snuff-takers open the mouth when they breathe. Owing to its prominence, the Nose is liable to many injuries; fracture of the bones is not uncommon, and it is likely to be followed by considerable loss of blood; these may be easily known by the mobility of the parts, and it is not generally difficult to rectify the mischief: if a smooth quill be passed up the nostril, or a small piece of wood covered with lint, to act as a support on the inner side, the fractured parts may be restored to their proper shape with the fingers, and a few strips of strapping-plaster will keep them so: they should be kept covered for some days with lint dipped in cold water to prevent inflammation, which so near the brain might be very serious.

Sometimes foreign bodies, such as pieces of tobacco pipe, &c., get pushed up the Nose by children; if it is a bean, or anything which swells by absorption of moisture, the

extraction is a matter of great difficulty. This should not be attempted by other than a professed surgeon; yet if the assistance of such cannot be readily obtained, the effort may be made by means of the flat end of a probe or a silver bodkin, bent in about the eighth of an inch at the end, and the instrument then introduced and passed beyond the object, so as to draw it out as with a hook, when the foreign body has not penetrated far; if the opposite nostril is closed, and the child is made to blow the Nose violently, it may sometimes be driven out.

When the lining membrane of the Nose is inflamed and ulcerated, a solution of Carbonate of Soda in Warm Water thrown up by a syringe will be of service; if the purulent discharge be offensive, a few drops of the solution of Chloride of Soda or Lime should be added to this. For treatment of Polypus of the Nose (see *Polypus*); for partial or total loss of the organ, which is sometimes a consequence of venereal taint (see *Syphilis*). It would be useless here to describe the operation of restoring a Nose lost by decay of the bone and tissues, or through accident, because it is a nice and difficult act of surgical skill, which no non-professional person could attempt; it has been done in several instances with tolerable success.

Of Bleeding at the Nose we have already spoken at page 103, vol. I. On the size and form of this organ as an adjunct to the beauty and expression of the countenance, and as an indication of character, we need not here dwell.

NOSOLOGY (Greek *nosos*, a disease, and *logos*, a description). An arrangement of diseases according to their genera and species; or, in other words, the scientific arrangement of diseases: this has been attempted from the earliest periods of medical inquiry, and various systems have been for a time followed. Sauvages, however, was the first who made what could be really called a scientific arrangement; taking the most prominent symptoms as his guide, he divided them into ten great classes, with the names of which it would be useless to trouble our readers; under the classes were arranged various orders. This method was followed by Linnæus and others with some variations; but their systems were all superseded by that of Dr. Cullen, which was recommended by its simplicity, and which exercised a great influence over modern pathology, or the treatment of disease. It would answer no good end, to enter into an explanation of Cullen's ar-

arrangement, nor of that of Dr. Mason Good, and other nosologists; suffice it that they are all more or less artificial, and frequently bring together diseases of a very dissimilar character, and have done some mischief by leading to the impression that diseases have as distinct a character, as the objects of natural history, and can be as easily defined, while, as every medical practitioner knows, that this, except in some few instances, is not the case.

**NOSTALGIA** (Greek *nostos*, a return, and *algos*, pain). A vehement desire to return to one's own country. See *Home Sickness*.

**NOSTRUM** (Latin for our own). A term applied to *Quack Medicines* (which see). The preparation of Nostrums of marvellous efficacy, as asserted by their proprietors and vendors, in the cure of all diseases, has been a profitable trade from a very early period of time, and we do not find that, in this so called enlightened nineteenth century, it flourishes less than it did in the dark ages, when travelling mountebanks exhibited their phials of elixir, and boxes of panacea, and amused and astonished gaping crowds, with lying tales of their wondrous virtues. Morrison, Holloway, and Company, still find that it is a thriving and profitable calling to delude the public, and they can do so now with a show of authority, having the sanction of a government stamp, and "the Queen's letters patent." One of the above association of nostrum vendors expends, we are told, £30,000 per annum in advertising; what must we think of the state of public intelligence which enables him to do this and reap, as he no doubt does, or he would not continue the practice, a handsome profit. By analysis, or otherwise, the composition of most of the favorite Nostrums of the day has been discovered: it would occupy too much space to give anything like a complete list of these, so numerous are they, but the following are a few of them:—

Among the most notorious of all the Patent Pills are those which go by the names of *Antibilious*, *Aperient*, and *Liver Pills*. These consist, in almost every instance, of nearly the same ingredients: in fact Aloes is the great basis of them all; and to this is conjoined Gamboge, Jalap, Extract of Colocynth, Soap, and, sometimes, a volatile oil, as Oil of Aniseed, Oil of Peppermint, Oil of Caraway, or Oil of Cloves. They are therefore almost identical in their composition with the common Aperient Pills, which are dispensed at the public hospitals, and sold at a cheap rate by every druggist in the kingdom.

To, take these in their alphabetical order, they will stand thus:—

1. *Ali Ahmed's Antibilious Pill*, which is styled one of the Treasures of the Desert. These pills are highly silvered, to set them off; there are twenty in a box for 1s. 1½d.; and, as usual, they are accompanied with a long list of testimonials. These Pills consist almost entirely of Aloes and Soap; indeed, a pennyworth of Pill-Cochia, as it is termed, will make about two boxes of them.

2. *Anderson's Pills* are composed of Barbadoes Aloes, Jalap, and Oil of Aniseed.

3. *Dr. Baillie's Pills* consist of Extract of Colocynth, Extract of Aloes, Castile Soap, and a little Oil of Cloves.

4. *Barclay's Antibilious Pills* consist of Extract of Colocynth, Jalap, Soap, Resin of Guaiacum, Tartar-Emetic, and Oil of Caraway.

5. *Cockle's Antibilious Pills*, and Family Aperient Pills, consist chiefly of Aloes, Scammony, Jalap, and Gamboge, with a very small quantity of Camomile.

6. *Dixon's Pills* consist, according to Dr. Paris, of Aloes, Scammony, Rhubarb, and Tartar-Emetic.

7. *Dr. Fothergill's Pills*, consist of Aloes, Scammony, Extract of Colocynth, and Tartar-Emetic.

8. *Holloway's Pills*, which are vaunted as a remedy for all diseases, consist of Aloes, and a vegetable matter like Scammony, or Jalap, and Soap.

9. *Hooper's Pills*, of Aloes, Canella, Green Vitriol, Myrrh, and Ivory Black.

10. *Kaye's Worsdell's Vegetable Restorative Pills* are composed of about equal parts of Gamboge and Aloes.

11. *Lee's Antibilious Pills*, of Aloes, Scammony, Gamboge, Jalap, Calomel, Soap, and Syrup of Buckthorn.

12. *Lowden's Bilious and Liver Pills* consist of Aloes and Colocynth.

13. *Morison's Vegetable Pills*.—These are said by the vendor to be particularised for every complaint, and to be suitable to all classes of persons, even to the infant at the breast. The pills marked No. 1, consist of equal parts of Aloes and Cream of Tartar. Those marked No. 2 are composed of Gamboge, Aloes, Colocynth, Cream of Tartar, and a vegetable matter like Horehound.

14. *Parr's Life Pills*, which are sold as the true medicine that enabled Old Parr to reach his great age, consist of Aloes and a vegetable extract like Colocynth.

15. *Peter's Antibilious Pills* are com-



posed of Aloes, Jalap, Gamboge, Scammony and Calomel.

16. *Dr. Scott's Bilious and Liver Pills*, of Aloes, Rhubarb, Jalap, and Peppermint.

A glance at the preceding formulæ will show that the great basis of all these Aperient Pills is a common and cheap cathartic substance, which is usually called Bitter Aloes. To this is conjoined Soap, Scammony, Jalap, Colocynth, and frequently Gamboge. Of all these substances the last is by far the most dangerous; in fact, it is ranked by toxicologists among the acrid poisons. There is no doubt that Gamboge has been selected by quacks as a constituent of Aperient or Antibilious Pills, because of its great activity as a purging agent; and from the circumstance that many, if not most, of the derangements of the system, are occasioned by errors in diet and by irregularities in the action of the bowels, the operation of such a cathartic, provided it is not too energetic, is likely to have a beneficial effect, and so to increase the reputation of the Nostrum.

A second class of pills to which we might refer, are those called *Stomachicæ*, *Dinner*, *Digestive*, and *Tonic Pills*. These are composed of Aloes, with Ginger, Rhubarb, Cayenne, Ipecacuanha, and a Volatile Oil, as of Camomile, Cloves, or Peppermint. The following are the most notorious:—

1. *Backer's Tonic Pills* consist of an Alkaline Extract of Black Hellebore, with Myrrh, and Powder of Holy Thistle.

2. *Dr. Baillie's Dinner Pills*, of Aloes, Ginger, Ipecacuanha, and Syrup.

3. *Bath Digestive Pills*, of Rhubarb, Ipecacuanha, Cayenne Pepper, Ginger, Gamboge, and Soap.

4. *Moseley's Pills*, of Rhubarb, Ginger, and Syrup.

5. *Norton's Camomile Pills*, which are vaunted as the most certain preserver of health, the purifier of the blood, and the sweetener of the whole system, consist of Aloes, and Extract of Camomile, with a little Oil of Camomile.

6. *Speediman's Pills*, of Rhubarb, Aloes, Myrrh, and Extract of Camomile, with a little Oil of Camomile.

7. *Starkey's and Matthew's Pills*, of Black Hellebore, Liquorice, Turmeric, Opium, Castile Soap, and Syrup of Saffron.

8. *Lady Webster, Lady Hesketh, and Lady Crespigny's Dinner Pills*, are composed of Aloes, Mastic, Red Rose Leaves, and Syrup of Wormwood.

9. *Page Woodcock's Wind Pills*, of Aloes, Ginger, Cloves, and Peppermint.

A third class of Quack Pills is the *Renal*

and *Gravel Pills*. These consist of Soap and Carbonate of Soda. Two of these are notorious at the present time, viz.:—*Bed-doe's Pills for Gravel*, and *Dr. De Roos' Compound Renal Pills*. Both of them owe what little activity they possess to the Alkali of the Soap and Soda.

The Patent Cough Pills are chiefly composed of Ipecacuanha, with Gum Ammoniacum, and Gum Benzoin. *Ali Ahmed's* contains the former, and *Lowden's* the latter.

*Dr. Wardleworth's Pills for the Cure of Piles*, consist of  $3\frac{1}{2}$  grains of Pitch.

Lastly, there are Pills, which have been advertised very extensively of late, in the form of an appeal to nervous sufferers from a retired clergyman, who undertakes to send the recipe for making the Pills on his receiving a postage-stamp. The recipe or prescription, is as follows: Alcoholic Extract of Ignatius Amara, thirty grains; powdered Gum Arabic, ten grains—make into forty Pills. This is usually accompanied with a sincere and earnest hope that, under Divine Providence, it will be found to produce the desired effect. It commonly happens that no one can make up the Pills but the dispenser to the retired clergyman (the Rev. E. Douglass), and hence the necessity for another communication, together with 2s. 6d. in postage stamps, for a supply of the Pills. These Pills have been examined on several occasions, and found to contain no particle of the active principle of the Ignatia Amara—indeed, 20 grains of the Pills yielded to Alcohol only 3-tenths of a grain of a sweetish matter, which may be regarded as Sugar; there has been no trace of Strychnia or Brucia present in it. The real constituents of 20 grains of the Pills are—Gum 8 grains, Starch 11, with about 1 grain of a greenish matter, which is wholly inert. It is fortunate, perhaps, that the Reverend Edward Douglass is cautious enough to send such an inert preparation; for if the Pills containing the real Ignatia Amara were taken with any degree of indiscretion, it is very probable that death would be the result.

**NOXIOUS GASES.** Of these Carbonic Acid, Nitrogen or Azote, and Hydrogen, are the forms which most frequently come in contact with the human lungs, and cause suffocation: the first of these is produced by the act of fermentation in breweries, slaking lime, or burning charcoal; it also constitutes what is called four air at the bottom of wells, and in the recesses of cellars and caves long unopened, as well as the "choke damp" of mines, by which so much mis-

chief is frequently caused. Before descending into such places a lighted candle should always be lowered to test the purity of the air; it will be immediately extinguished if there is an excess of *Carbonic Acid* (which see).

Noxious Gases, or vapours, of various kinds, are constantly arising from ill ventilated drains, cesspools, and other places, where decaying animal or vegetable matters are allowed to collect and remain: they constitute the miasma which arises from marshes and other moist lands; and, to inhale them is at all times prejudicial to health. See *Air, Atmosphere, Ventilation*.

NUMBNESS. Insensibility of touch or general feeling: this is symptomatic of several diseased, or injured states of the body or its members; with a weak and defective circulation there is often partial Numbness of the extremities, and in many of them it might be produced by the application of pressure. Excessive cold causes it, and so does gangrene or mortification, paralysis, and sometimes spinal complaints. Friction is the best thing to restore a numbed part to vivacity; the application of heat in such a case will often prove mischievous, and especially when it arises from *Cold* or *Frost* (which see).

NUMMULARY. (Latin *nummus*, money). A term applied to the sputa in phthisis, when they flatten at the bottom of the vessel like pieces of money.

NURSE, NURSING. As in a book like the present this is a subject of very considerable importance, we shall devote some little space to it, although we have elsewhere under several heads, already incidentally alluded to it. The duties and responsibilities of Wet Nursing, we have already said enough of under the head of *Infants*; let us therefore now direct our attention especially to *Nurses for the Sick*, and *Nursery Maids* for children. With such of the former as perfectly understand their business, and are conscientious in the performance of the duties which they undertake, it is a very difficult matter to meet; and we shall hardly overrate the importance of obtaining such, when we consider how much the success of the best directed medical treatment depends upon its being faithfully carried out, and aided by good and judicious Nursing. As a general rule, we should say that a Nurse for the sick should not be younger than 30, nor older than 50; her health and temper should both be good, and if she have children, they should be of sufficient age to require no great

amount of personal care and superintendence: if her mind is much distracted, and her time occupied with home duties and anxieties, she is not likely to devote either the one or the other to her patients as she ought to. A single woman who is content to remain so, and has strong benevolent instincts, is to be preferred for the office; or a widow who has known and felt what trouble and suffering is, having passed through chastening trials and afflictions, is perhaps better still. She should be cheerful in her mind, and gentle in her manners; anyone who has been upon a sick bed, or has closely watched the psychology of disease, knows what a good effect cheerfulness and gentleness have upon patients, whose bodily pains require alleviation. Never choose a loud-speaking, dictatorial woman for a nurse; never a prodigiously busy, bustling, and talkative one; the woman who cannot do without an occasional glass of gin because she "has the rheumatiz," and who likes things hot and strong, will never manage matters satisfactorily in the sick room; nor will the fat and lazy one, who always falls asleep as soon as she sits down, and has an insuperable objection to getting out of bed in the night. Always distrust and shun one who professes an intense affection for the patient, talks about the sacrifices made for his or her comfort, and of the great satisfaction she has given wherever she has been "a-nussing" before; who flatters and fawns and curries favour by the most abject means; such a woman as that is not to be trusted about the bed of a suffering friend or relative; and, indeed, one is puzzled to know who is the model of a perfect Nurse; we have seen, but very seldom a person, whose services were to be obtained for money, who at all approached near to it. A motherly, warm-hearted, gentle, Christian woman, will do more good in the sick room than all the doctors in the world; the true "Sister of Charity" of the Nightingale stamp, is what is wanted; but failing, as we commonly do fail, in obtaining such, we must take the best we can get; and, overlooking many faults and shortcomings, do all that we can for our beloved patients ourselves, and be thankful if we get a nurse at all in times of sickness and emergency. We should remember that the women who generally go out Nursing are not trained in the best of schools for the work which they have to do; that they must often have tempers soured by domestic afflictions, such as poverty, want, the brutality of a drunken husband, the undutiful treatment of ill-instructed children;



or else they are those with crushed hopes and blighted affections, whose mature life has not realized the bright anticipations of childhood, and who take to Nursing as a means of subsistence. After all there is no Nurse like the affectionate friend or relative; one touch of the loved one's hand, one tone of her voice, one pitying glance of her eye, how it soothes the irritable mind, and makes the anguish of the body endurable. Not always, however, can the loving and sympathizing attendant at the sick bed be had, and then the services of a hired Nurse are indispensable. To the qualifications already hinted at, we may add that she should be a woman of some education, at least to the extent of being able to read the written directions on the medicine bottles, or, otherwise serious mistakes may occur; she should be a light sleeper, awaking at the slightest call or movement, and have a light step so as to move noiselessly about the room, and a light soft hand. She should be strong, and of moderate stature, that she may have some command over her position in the lifting that is oftentimes necessary. All these are desirable, many of them necessary qualifications, and the more of them our Nurse possesses the better; although we can scarcely expect to have them all combined in one person. And then, on the other hand, we must not expect too much from the Nurse, her duties are commonly extremely arduous; she has broken rest, confinement, and other depressing influences to contend with; this should be borne in mind, and some charity exercised in judging of her errors of omission or commission, so that they be not too glaring or frequently repeated to endanger the safety of the patient. Let her at all times be treated with kindness and consideration; her charge, rightly considered, is a holy one, involving the issues of life and death; and if she is really anything like what a nurse ought to be, she is a woman of a thousand, and ought to be valued as such.

Under the head of *Sickness*, we shall lay down some clear and simple rules for the management of sick rooms, and their inhabitants; we therefore need scarcely here dwell upon the duties of the Nurse, which, of course, vary greatly according to circumstances.

*Nursery Maids* are, unfortunately, as a rule, by no means a very trustworthy class of persons; and yet, both physically and morally, how much the present and future welfare of our children depends upon them. It is most difficult, nay, almost impossible, to meet in one person with that rare combination of qualities which would constitute

a good Nursery Maid. She should have sprightliness and liveliness enough to amuse the children, with sufficient gravity and discretion to keep both herself and them within the bounds of prudence; she should have good nature, combined with firmness; good sense, and sufficient education to enable her to detect and repress erroneous ideas and principles in the minds of her little charge: scrupulously clean should she be, and true and honest; she cannot attempt deception, or concealment of anything from her mistress, without making the child deceptive too; her thoughts, like her language, must be pure, or she will inevitably poison the springs of infant innocence; she should be orderly and methodical in her habits; no gossip; no believer in old fables and ridiculous stories of ghosts and the like. Some children are ready to go into fits if left in the dark, because they have been told foolish stories about "bogies," witches, and the like. We see Nursery Maids now-a-days walking about in hoops, and dressed more finely than their mistresses; and half the young women, who might be honest and useful members of society—real helps and blessings to mothers of families, come to ruin through love of finery;—this is the great curse of the age, especially disastrous in its effects upon that class to which we look for a supply of our domestic servants. The Nursery Maid should not be smitten with this fatal mania; if a fine and tawdry dresser, she will seldom be neat and tidy in her under garments; she will spend more than she can afford in outward adornments, and be tempted to eke out her means by dishonesty; besides which, her thoughts will be too much taken up by the one absorbing subject, to allow of the child, or children, under her charge, receiving a proper amount of attention. But what has all this to do with the subject of physical health, we may be asked? To which query we reply, that mind and matter are so intimately connected in our organization, that a proper care and training of the one is essential to the well being of the other.

The treatment of children in the Nursery should never be left altogether to servants; a mother's superintendence is always required; and if circumstances preclude the possibility of this, some near relative or staid elderly person, who has herself known and felt the cares and responsibilities of maternity, should superintend the arrangements. Some mothers there are who voluntarily abandon this sacred charge, and entrust their children to menials. The remarks which we have made under the

head of *Infants* will apply equally well here, and serve to make our opinions on this subject known.

With regard to *Nurseries*, we may just observe here that the aspect of such is of the greatest importance, as the health of the inmates depends much on this; there should be plenty of light and pure air (see *Ventilation*); an eastern aspect is too keen, and a northern or south-western one is greatly to be preferred. The Nursery should be at or near the top of the house, and the children's bed room on a level with it; the windows should be opened at all convenient seasons, and may be left so during the summer nights, provided there are no sleepers in it, which there never should be if it is avoidable. A crowded Nursery will always endanger the health of the children, especially if it be not thoroughly ventilated (see *Air*). A very young infant should not be taken into a Nursery where there are well-grown children, as these will, it is likely, be rude and noisy, so as to greatly disturb it, and they too will be annoyed and their pleasures interfered with by its crying.

**NUTMEGS.** The fruit of the *Myristica Moschata*, which somewhat resembles a pear-tree, and is a native of the islands of



the Indian Archipelago, but more especially of the Moluccas.

This well-known spice owes its stimulant and stomachic properties to the presence of

a volatile oil; it is sometimes used medicinally, but is seldom administered alone, being more frequently employed to disguise the flavour of more nauseous medicines. The fat, or as it is called Butter of Nutmeg, is sometimes an ingredient in ointments and plaisters. The dose of powdered Nutmeg or Mace, which possesses the same properties, is from 10 to 30 grains; of the Oil, from 1 to 3 drops; of the Spirit (*Spiritus Myristici*), 1 to 4 drachms; it also enters into the composition of the Compound Aromatic Powder, dose 10 to 30 grains. See *Mace*.

**NUTRITION.** This is defined by a good authority to be "the last step in the general process of assimilation, by which living bodies convert the materials which they derive from their food into substances like their own, and appropriate the materials thus changed to their own increase or repairs. The several nutritive matters received into the living body are variously altered by digestion, absorption, respiration, and by all the other changes which the blood or other fluid undergoes in its passage to the several parts of the frame. These changes constitute the process of assimilation, at the end of which each part of the body abstracts from the general and homogenous mass of nutritive fluid that which is required for its own growth or repair; muscle abstracting particles to form muscle; nerves from the same fluid abstracting particles to form nerve and so on." This is the whole theory of Nutrition stated in brief, by which it may be understood that the body, with all its varieties of materials, and through all its changes of form, is developed by Nutrition derived from the food taken into the stomach. If the whole body (as in dwarfs), or any part of it, as the lip in hare-lip, or the palate in cleft palate, come short of its full development, we at once say it is the result of some defects in the nutritive process.

In animals, the material of Nutrition is obtained from the arterial blood, which is constantly sent into the vessels distributed amongst or near the elementary structures of this tissue, but the proper act of Nutrition is performed, not by the power of the blood-vessels as has been commonly supposed, but by the cells and the structures analogous to them, which convert the common nutritive matter drawn from the blood into their own proper tissue. See *Aliment*, *Digestion*, *Food*.

**NUTS.** This kind of fruit, in all its varieties, must be pronounced decidedly unwholesome. Some persons, but very few, may eat Nuts with impunity; when new they are generally solid and full of oil, so as



to defy any but the strongest digestion; nevertheless, they are much relished and eaten, and especially by children, to whom they should be given not at all, or very sparingly. Chestnuts, when roasted or boiled, are not open to this objection. See *Almonds, Filberts, Hazel, &c.*

**NUX VOMICA.** The *Strychnos Nux Vomica*, is a native plant of the East Indies, where it is commonly called the Poison Tree: it belongs to the natural order *Loganiaceæ*, and produces the large round flattened seeds of a brown colour, which have long been sold in the shops as a poison for



rats and mice. In India and Arabia it has been used as a medicinal plant from time immemorial, and more recently in Europe as an antidote to the plague, and as a remedy in intermittents, dyspepsia, dysentery, diarrhoea proceeding from debility, worms, hysteria, rheumatism, and hydrophobia: when taken in large doses it produces fearful consequences. The symptoms of poisoning by this substance are, first, agitation and trembling; these are succeeded by stiffness and twitching of the limbs, which gradually becomes more violent until a fit of spasm succeeds, in which the head is bent back,

the spine stiffened, the legs extended and rigid, and the respiration checked for a time: then follows an interval of comparative ease and composure, during which the senses are entire and unusually acute; but this is soon broken by another spasm more violent than the last, and so on until the patient dies of suffocation, produced by the spasmodic constriction of the muscles of the chest. The poisonous effect of this drug appears to be owing to its exciting action upon the spinal system of nerves. The stomach-pump, with repeated doses of Tartar Emetic, and cold effusions should be resorted to in such a case; to be followed by Brandy or some other stimulus; but there is no known antidote for the poison, and death is generally the result of taking it. Tobacco has been recommended, and said to have proved efficacious in some cases; but we cannot speak of this with any certainty. On analysis, *Nux Vomica* is found to contain two alkaline principles—*Strichnia* or *Strichnine*, and *Bruchia* or *Bruchine*; (both of which see); they are united with a peculiar acid called *Igasuric* or *Strichnic Acid*. The pharmaceutical preparations of *Nux Vomica* are the Extract, dose  $\frac{1}{2}$  a grain to 3 grains, and the Tincture 5 to 10 minims. Since the introduction of *Strichnine*, however, these have been but little used, and no preparation of this most powerful drug should be, except under the most careful medical superintendence.

The bark of the *Nux Vomica*, called False Angustura Bark, is sometimes used as a tonic and febrifuge; and the root, which is very bitter, is used by the natives of India to cure intermittent fevers and the bites of venomous reptiles; the fruit in which the seeds are enclosed is soft and pulpy; it is, when ripe, of a beautiful orange colour, and is greedily eaten by birds; the seeds are used in the preparation of spirits, to render them more intoxicating; they may have been occasionally employed for this purpose by unscrupulous brewers, but not, as we imagine, to any great extent.

**OAK.** This, the noblest and most historical of England's trees is the *Quercus Pedunculata* of botanists, belonging to the natural order, *Amentaceæ*. The Bark, which contains tannic acid, and is therefore astringent in its properties, is used both externally and internally in hæmorrhages, fluxes, and all cases which require astringents. The dose of the Powder is from half a drachm to a drachm; it has been given with some success in intermittent fevers, but the Decoction is the more general form of administration; it is made by boiling 10

drachms of the bruised Bark in 2 pints of Water, until it is reduced to 1 pint; the dose is from 1½ to 2 ounces; it may be used as an injection, gargle, or lotion. There is also an Extract of Oak Bark, the dose of which varies from 10 grains to 2 scruples.



In chronic sore throat, with relaxed uvula, the above Decoction, with about half a drachm of Alum, and 1 oz. of Spirits of Wine to the pint, makes an excellent gargle. Galls are another medical produce of the Oak, although they are not so commonly found in this species as some others: (for the uses and properties of these see *Gall*).

**OAT.** This well-known plant, the *Avena Sativa* of botanists, belongs to the natural order *Gramineæ*, or grasses, and it performs an important part in the economy of creation, being considered by some the most nutritious of all the grains used as food; as an article of diet, however, it generally ranks next after wheat, the latter being superior to it in consequence of containing a larger amount of gluten. Formerly, the whole population of the north of England, Wales, and Scotland subsisted wholly, or chiefly, on this grain; and at present it is the kind most largely consumed in many parts of the latter country; although, in others, it is gradually giving place to wheat; the notion that it is fit food only for the inferior animals, having of late years gained much ground in the public mind, although it is a very erroneous one; the Scottish Highlanders, and the Lowland peasantry, who have lived almost entirely on Oatmeal, proving this sufficiently, alike by their well-knit, muscular, and bony frames, and their

clear and vigorous intellects. According to the analysis of Professor Norton, of America, the grain of Oats contains 65·11 per cent. of starch; 2·24 of sugar; 2·23 of gum; 6·55 of oil; 16·51 of a nitrogenous body, analogous to casein, though differing from it in some respects; 1·42 of albumen: 1·68 of gluten; 2·17 of epidermis; and 2·09 of alkaline salts, with allowance for loss and error.

*Of Oatmeal*, the Scotch is by far the best; to prepare it the grain is first kiln-dried, stripped of its outer skin or husk, and then coarsely ground. Made into "porridge," it constitutes, perhaps, the best breakfast diet for children known; it should be prepared thus:—Put into a saucepan as much water as will make the quantity desired, say a pint; let it boil, then take a handful of the meal, in the left hand, and while letting it fall gradually and gently into the water, stir the mixture quickly round with a wooden spoon, held in the right hand; continue doing this, until the mixture assumes the consistency of thick gruel; then add a little salt, and let it boil gently for ten minutes, keeping it stirred all the time; add a little more water, and again boil for other five minutes, still stirring; it will then be quite smooth and digestible, to make it which is the object of the lengthened boiling: to make it more nourishing and pleasant, some milk may be added, and, if preferred, a little sugar; this hides the slight bitter taste of the meal, which is objectionable to many. Scottish children never tire of porridge, but take it morning and night regularly until they grow up, and often afterwards. It would be well if this practice were more followed south of the Tweed, than it is.

The kernels or grain of the Oat, when deprived of their husks, are called Groats; they were formerly much used in the thickening of soups and broths, but are now generally superseded by pearl-barley, and their chief use at present is for Gruels and decoctions for demulcent purposes.

In the process of shelling there is obtained from the grains of Oat a kind of thin pellicle or minor scale, which has the technical name of "seeds," and from which is prepared a peculiar jelly-like food, very good and nourishing for invalids; it is called in Scotland *Sowens*. Either the groats or oatmeal may be employed in the preparation of *Gruel* (which see).

A very nutritious *Oatmeal Pudding* may be made in the following manner:—Over a pint of the best fine Oatmeal pour a pint of boiling milk; do this in the evening, and let it stand all night; next morning beat



up one egg with a little salt, and stir it well in; then butter a basin sufficiently large to hold the whole, cover it tightly with a floured cloth, and boil it in a large saucepan about an hour and a half. Eat it either cold or hot with a little butter, not molted, and, if agreeable, salt; when cold it can be cut into slices, and toasted like bread. Oat Cakes, which in Scotland are made thus:—Make a paste of oatmeal and water, seasoned with salt, of such a consistency that it can be rolled out as thin as a slate; cut it to any required size; mark the top crosswise, and bake on a girdle or stone-slab over the fire, before which the cake should afterwards be placed, to brown at the top.

*Oatmeal Poultices*, are more stimulating, and draw more rapidly than those made of linsced meal, and are therefore sometimes employed in preference; but the mass which this meal forms is not so firm and tenacious (see *Poultices*).

Concretions in the bowels are sometimes caused by a too exclusive use of Oatmeal as food, especially when it is coarsely powdered and eaten in a dry state. One of the most beneficial effects of this meal is the result of its aperient property; with some persons its action in this way is too strong, and, in this case it must be discontinued; with others it gives rise to heartburn and sickness, a plain proof that it is not suited to their particular systems: very commonly a constant employment of it as a breakfast diet will correct a tendency to constipation. Its quality, and consequently its properties, at all times depend very much upon the soil in which it is grown; and that of Scotland appears to produce it in the greatest perfection. Much of that sold in this country is adulterated with barley-meal, which is not nearly so nutritious an article of diet.

**OBESITY** (Latin *obesitas*, corpulency). An excessive development of fat in the body; in scientific language *Polysarchia* (which see), also *Fat*.

Obesity is of two kinds; one general, extending over the whole body and limbs, which may be considered as a kind of dropsy of the animal oil; and the other confined to certain organs, in which case it is called *splanchnic*. The omentum is commonly the part overloaded with fat, which produces that rotundity of the abdomen, usually known as pot-belly.

**OBLIQUUS**. The name given to certain muscles, on account of their oblique position; thus we have *O. externus*, and *internus*—the first, a muscle of the abdomen, arising from the eight lowest ribs, and inserted into

the linea alba and the pubes; it is sometimes called *descendens*; the second is a muscle situated within the first, and termed *ascendens*, or *O. minor*: these two muscles effect the turning of the trunk upon its axis, and other motions. *O. inferior* and *superior*, are two muscles of the eye; the first being the shortest and the last the longest pertaining to that organ; hence they are sometimes called *brevissimus* and *longissimus oculi*; they produce the rolling motion of the eyeball, and hence have been named *circumagentes*, and also, from the expression they impart, *amatorii*. There are also two muscles which incline the head backward, and to one or other side, to which the names *O. inferior* and *superior* have been applied.

**OBLITERATION** (Latin *oblitero*, to efface). A surgical term, implying the closure of a canal or cavity of the body, by adhesion of its parietes or edges. See *Wound*.

**OBLIVION** (Latin *obliviscor*, to forget). Failure of memory, forgetfulness; sometimes called *Amnesia* or *Annestia*.

**OBSTETRIC** (Latin *obstetrix*, a midwife). Belonging to midwifery, or, as it is sometimes called, *Obstetrics*. See *Labour*.

**OBSTIPATION** (Latin *obstipo*, to stop up). A form of costiveness, in which the fœces, when discharged, are hard and slender, or in little balls and fragments. See *Constipation*.

**OBSTIPUS** (Latin *ob*, to, and *stipis*, a stake). Stiff, awry; hence the term *Caput obstipum*, wry-neck, or *Torticollis* (which see).

**OBSTRUENTS** (Latin *obstruo*, to shut up). Medicines which close the orifices of vessels.

**OBTUNDENTS** (Latin *obtundo*, to make blunt). Substances which sheathe or blunt irritation, like demulcents; they generally consist of bland, oily, mucilaginous matters, which form a covering to inflamed or irritated surfaces. See *Demulcents*.

**OBTURATOR** (Latin *obturo*, to stop up). The name of two muscles of the thigh, distinguished by anatomists as *O. externus*, and *O. internus*: by means of these the thigh moves backwards and forwards, and rotates upon its axis; the first is sometimes called *rotator femoris extrorsum*; the latter is alluded to in old surgical works, as the *bursalis* or *marsupialis*. See *Thigh*.

**Occiput** (Latin *ob*, and *caput* the head). The back part of the head, of which the front is called the *Sinciput*. From this root, we have the term *Occipito-frontalis*, applied to a muscle which arises from the transverse ridge of the *occipital bone*, passes over the upper part of the cranium, and is inserted into the skin under the eyebrows;

this is the muscle which raises the eyebrows and wrinkles the forehead.

**OCCCLUSIO** (Latin *occludo*, to close up) closure; hence the terms *O. pupillæ lymphatica*, closure of the pupil by an adventitious membrane; and *O. pupillæ cum synechia posteriori*, closure of the pupil with adhesion of its margin to an opaque capsule, the lens being at the same time generally opaque; it is usually a consequence of *iritis*. See *Eye*.

**OCCULT** (Latin *occultus*, hidden). As applied, 1st, to diseases, the causes and treatment of which are not understood; and 2nd, to qualities of bodies which do not admit of rational explanation.

**OCCUPATION** (Latin *occupatio*). A person's calling or business, which will often have a peculiar effect in modifying the state of health, and inducing particular diseases; it will also at times considerably modify the action of medicines administered; it is, therefore, of great consequence that any one consulting a medical man should state every particular as to his or her mode of life and Occupations. Considerable enquiry has of late been made into the rate of mortality, which obtains in the several mechanical and other employments, by which people earn a livelihood; and laws have been made, and improvements have been effected in the means of carrying on the various industrial operations, with a view of guarding against the injurious effects of some of them. As a simple and striking example of the latter, we may mention the magnetic wire screen now worn over the mouths of the needle grinders, by which the fine particles of steel dust are attracted, and prevented from entering the throat; by this means the lives of these operatives have been greatly prolonged: other instances might be mentioned of beneficial results from efforts made in this direction; but we can here only speak in general terms; and first on Occupations which necessitate a constrained position; these have their characteristic organic diseases, which tend to shorten life; thus, the tailor, and the shoemaker often suffer, the former with paralysis of the lower limbs, the latter with affections of the heart, lungs, and stomach, from bending to the last and lapstone, and both, in common with all sedentary persons, have commonly constipated bowels. The housemaid, too, gets white swelling in her knee, from its frequent contact with the stone step or floor, and the thatcher has the same result produced by pressure against the ladder; chimney sweeps have cancer of the scrotum; cooks are very subject to piles; and cabmen and coach drivers

to pulmonary complaints, rheumatism, and affections of the eyes from constant exposure to cold and wet, while they are precluded from active exercise. Then there are grocer's itch and baker's itch, and the lead colic which affects painters and plumbers. Those who are exposed to noxious vapours as in chemical works and factories, or who breathe the malaria of marshy and fenny places, or of ill-drained or ill-ventilated houses, have their lives cut short by one disease or another, which might in most cases be found to have originated in the circumstances attendant on their particular trade or calling. We find that those who reside and labour in towns have not the strength and stamina of those engaged in agricultural pursuits; among the first prevail serofulous affections, pulmonary complaints, typhoid fevers, and other diseases which are characteristic of want of tone and vital energy; those in the country who breathe plenty of fresh air, so as to get their blood well oxygenized, and are strong and active, are more liable to inflammatory disorders. It has been calculated that of our town population,  $3\frac{1}{2}$  per cent. die annually, but of our country population only  $1\frac{1}{2}$  per cent., while the average state of health stands in the proportion of about 7 to 3.

An idle and well-to-do person does not, as a rule, enjoy such good health as the agricultural labourer, when he is properly fed, and not overworked; but this, alas, is not very commonly the case. Inflammatory diseases are likely to attack those who lead luxurious lives, and whose Occupation it is to take their pleasure only. Those who overtask their intellect will be pretty sure to suffer for it in the end (especially if, as is commonly the case, they are too sedentary in their habits); they will be likely to have constipation, nervous debility, softening of the brain, leading to apoplexy.

After all, most of the bodily diseases from which men suffer might, in a great measure, be mitigated, if not altogether avoided, whatever may be their Occupation, by a little care, and attention to the laws of health; but we commonly see people so utterly reckless of these, and of the many dangers by which they are surrounded, that one only wonders, not that the deaths which seem to be the result of causes arising out of Occupations being many, but that they are so few. The miner will often be without his Davy lamp, and the needle-grinder his magnetic respirator, however well they may know what fatal results will follow, sooner or later from such neglect.

**OCTANA** (Latin *octo*, eight). An erratic



intermittent fever, which returns every eighth day. See *Ferers*.

**OCULUS** (Latin for the Eye). Hence come the terms *Ocular spectres*. Phantasmas, or imaginary objects floating before the eyes; they assume various forms, such as *Musce volitantes*, Motes or small floating bodies, a common precursor of amaurosis: *Net-work*, the *Suffusio reticularis*, of Sauvages, the *Visus reticularis* of Plenck: *Sparks*, this is the *Suffusio scintillans* of Sauvages, it generally proceeds from a blow or excess of light: *Dazzling*, this was called by the old Greek writers *Marmaryge*; it is supposed to arise from plethora of the small vessels: *Irridescent appearance*, exhibiting the colours of the rainbow; this was called by Sauvages *Suffusio coloris*.

From the same root *Oculus* comes, also the term *Oculist*, one who practices in diseases of the *Eye* (which see).

**ODAXISMUS** (Greek *odaxeo*, to bite). Pain or irritation of the gums. See *Teething*.

**ODONS** (Greek for a tooth). Hence the terms, *Odontagra*, gout in the teeth; *Odontalgia*, pain in the teeth, or tooth-ache, remedies for which are called *Odontalgics*, *Odontiasis*, dentition, or the cutting of the teeth; *Odontoides*, tooth-like, the name of a process of the dentata, or second vertebra. See *Spine*, and *Teeth*.

**ODOUR**. The peculiar effect of certain odours upon the sensitive nerves of many persons is very remarkable. We meet with some to whom that which is agreeable and refreshing to most, causes such a sense of sickness and disgust that they are, as the poet says, almost ready

“To die of a rose in aromatic pain.”

Others again there are who can tolerate, and even seem to enjoy, the most offensive odours. We cannot account for this, but must let it pass as a curious psychological fact. On the subject of odours we have already made some remarks in our article on the nose, and we shall have more to say on it when we come to speak of the sense of *Smell*, and of *Perfumes*. It will, therefore, be sufficient for us now to observe, that the odour of the body in sickness will frequently indicate pretty clearly the nature of the disease: thus consumption, acute rheumatism, and suckling, have each their characteristic odours; and in certain diseases the body emits a smell like that of damp earth. A fœtid breath may be caused by decayed teeth, or a morbid state of the stomach and bowels: we may sometimes observe this in healthy persons, who, for want of teeth, or from some other defect,

have not the power of reducing their food to a fit state for easy digestion.

**ŒDEMA** (Creek *œdeo*, to swell). This term literally means a swelling of any kind, but it is now confined to one of a dropsical nature, situated in the cellular tissue. The affection, when extensive, and accompanied with general dropsical symptoms, is termed *Anasarca*. Œdema may be the result of liver or kidney disease, and in this case the remedies must be directed to act beneficially on those organs; but when, as is often the case, it takes place in anæmia and chlorosis, and is clearly owing to want of tone in the system, tonics and other means of imparting strength must be resorted to. See *Dropsy*.

**ŒMOS** (Greek for the shoulder-blade). Hence the terms *Œmo-hyoideus*, applied to a muscle, which arises from the shoulder, and is inserted into the *os-hyoides*; this muscle it is which depresses the lower jaw. *Œmoplata* is a name by which the scapula or shoulder-blade is sometimes called.

**ŒNANTHE CROCATA**. The scientific name for the Hemlock, or Water Dropwort, belonging to the natural order *Umbelliferæ*: this is considered by some the most deadly of all our native vegetable poisons; it is said to



be equally fatal to man and the inferior animals, and many deaths are recorded to have taken place from eating the roots by

mistake for those of the Water Parsnip: they are not disagreeable in taste, to deter persons from doing this. The saffron-coloured, milky juice which the whole plant discharges, wherever bruised or broken, and especially at the root, is a sure indication of its poisonous nature; every plant which has this peculiarity should be avoided. In some localities where it is found, especially in Pembrokeshire, the plant is known by the popular name, "five-fingered root;" it is said to be useful in cutaneous diseases; applied to the skin it produces redness and irritation. The symptoms of poisoning by it are inflammation of the stomach, with great cerebral disturbances, indicated by giddiness, convulsions, and coma. The treatment will be the same as that of other irritant vegetable poisons. The common Water Dropwort (*Æ. Fistulosa*) is less poisonous than the above; it has a hot] nauseous taste, an unpleasant smell, and is therefore more likely to be regarded with suspicion.

**ÆSOPHAGUS** (Greek *oiso*, to carry, and *phago*, to eat). The carrier of food, or the passage by which food is conveyed from the mouth to the stomach. From the same root we have *Æsophagotomy*, the operation of cutting into this part for the purpose of extracting any substance which has lodged there, and cannot be otherwise removed. See *Alimentary Canal, Neck, Gullet*.

**GESTRUS.** The scientific name of the Breeze or Gad Flies; the larvæ of which, called Bots, are said to have been found convoluted in the fœces and mucus of man; that they find their way into the intestines of horses, and other animals, there can be no doubt, as they have been found there in great numbers: the eggs of the insect are



laid in holes punctured by the fly in the skin of the animal, are there hatched, and the irritation which they create causes the tongue to be applied to the part, and thus they are conveyed into the stomach. We give a cut of the male and female of this formidable fly, the latter being furnished with the piercing instrument called the ovipositor.

**OFFICIAL** (Latin *offina*, a shop). A term applied to any medicine directed by the Colleges to be kept in the shops. All the formula of the Pharmacopœias are termed official preparations, and are frequently so mentioned in this work.

**OIL** (Latin *oleum*, from *olea* the olive). The designation of a great many unctuous liquors, which are either of animal or vegetable origin; they are considerably lighter than water, or any watery fluid, and impart a greasy stain to paper: they are divided into *fixed Oils*, which also include the fats; and *volatile Oils*; and again, in accordance with their power of solidification, by absorption of oxygen from the air, into *drying* and *non-drying Oils*. Another very simple and natural division sometimes adopted is into *animal* and *vegetable Oils*; the latter being obtained by expression from the seeds chiefly of various plants: it is termed "cold-drawn," when no heat is used in the process. "Oils," is a common name applied to any greasy liniment, or embrocation, for sprains and bruises, and among other curious ingredients which country people are accustomed to ask for, such as Oil of Viper, &c., is Oil of Brick. This name may be derived from the practice which formerly obtained, of steeping a hot brick in Oil, and then subjecting it to distillation; this produced an acrid and empyreumatic fluid, which was called Philosopher's Oil. The principal fixed vegetable Oils used medicinally, are the Linseed, Poppy, Castor, Croton, Almond, and Olive Oils. The volatile kinds are very numerous; they are so called from their evaporating, or flying off, when exposed to the air; they are also called *essential Oils*, because they constitute the chief ingredient or *essence* of the vegetable from which they

are extracted; upon the presence of these depends the odoriferous properties of all plants; some of them, such as those of Turpentine, Lemon, Juniper, are composed simply of carbon and hydrogen; others, such as Lavender, Peppermint, &c., also contain oxygen. Camphor, which is a concrete Oil, belongs to this division; in

others, such as those of Garlic and Mustard, we find a portion of sulphur. Volatile Oils are valued chiefly, for their agreeable flavour, and for their stimulant and carminative properties; out of the long list of these, we may select Amber, Aniseed, Bergamot, Cajeput, Camphor, Cassia, Cinnamon, Camomile Cloves, Copaiba, Cubebs, Dill, Fennel, Juniper, Lavender, Lemon, Marjoram, Mint,



Orange, Peppermint, Pennyroyal, Pimento, Rosemary, Rue, Savine, Sassafras, Turpentine, as the most important: the peculiar properties of all these, as of the others here mentioned, and to be mentioned, are spoken of under their several heads.

All fixed Oils and animal fats are separable into two or three different principles: one of these, called *oleine*, remains fluid at the lowest temperature; a second, *margarine*, has a higher melting point; and a third, *stearine*, a still higher; if we observe olive and some other Oils in cold weather we can see this solidification of one constituent element of the fluid takes place sooner than another. Fixed Oils have also the peculiar property of forming soap with the caustic alkalies.

Of animal Oils, the Cod Liver and Spermaceti, with those of a more solid nature, such as Lard, Suet, &c., are the kinds which are chiefly used medicinally; none of these are Volatile or Essential Oils.

OINTMENT (Latin *unguentum*, from *unguo* to anoint). This is a greasy or unctuous preparation, in which lard or oil is made the vehicle of more active ingredients; it is generally of about the consistence of butter. Ointments should be used tolerably fresh, as if rancid they are irritating, and often counteract the good effect which they are intended to produce. The Antimonial, Gall, Hydriodate of Potash, Mercurial, Nitrate of Silver, and Red Precipitate Simple or Spermaceti, Sulphur, and Zinc Ointments may be selected from the list of these preparations, as those most likely to be useful in domestic treatment.

The Simple Ointment, which is serviceable for many cases of accident or injury, may be thus prepared:—Melt together, in a pot or pipkin, Spermaceti, 4 oz.; White Wax, 2 oz.; Olive Oil, 16 oz.;—then stir continually until it is quite set.

Formerly, Ointments were constantly used in the dressing of wounds and cuts, and all kinds of sore and inflamed surfaces; but of late, the more agreeable and cleanly, and perhaps more efficacious, water dressing has been employed, and with marked success. See *Cerates*.

OLECRANON (Greek *oleos*, the ulna, and *kranos*, the head.) The elbow or head of the ulna. See *Forearm*.

OLEFIANT GAS. (Latin *oleum*, oil, and *fio*, to become.) A name given by the Dutch chemists to a substance resembling oil; it was a compound of one part of carbon and one of hydrogen, and was named by Ure, Carburetted Hydrogen, to distinguish it from the gas resulting from the admix-

ture of one part of carbon with two of hydrogen, which is termed Hiper or Sub-Carburetted Hydrogen, and sometimes Hydroguret of Carbon.

OLEIC ACID. (Latin *oleum*, oil.) An acid prepared from soap made with potash and fluid vegetable oil; it receives the above name from its property of saturating bases, and forming neutral compounds.

OLEUM (Latin *olea*, the olive). Hence we have the terms *O. animale*, animal oil, an empyreumatic oil obtained by distillation from animal substances; this is sometimes called Dippel's oil; *O. ethericum*, Etherial oil, or Oil of Wine, is one of the ingredients of the compound spirit of *Ether*. *O. sulphuratum*, Sulphuretted Oil; formerly called Balsam of Sulphur. *O. vitilas*, oil of Eggs; obtained by boiling the yolks and then submitting them to pressure; fifty eggs yield about five ounces of oil; this is much used in the ointment for killing mercury.

OLEO-RESINÆ. Native compounds of volatile oil and resin; these are the proper juices of plants which constitute the natural orders *Coniferæ*, *Amyrideæ*, and some of the *Leguminosæ*, such are the *Turpentine*s (which see).

OLEO-SACCHARUM (Latin *oleum* oil, and *saccharum* sugar). A name given to a mixture of oil and sugar, incorporated to render the oil more easily diffusible through the watery fluid.

OLOPHLYCTIS (*olos* white, and *phlyxo* to be full or hot). A small hot eruption covering the whole body, when partial it is termed *phlyctæna*.

OLFACTORY. (Latin *olfacio*, to smell.) Belonging to the sense of smell, a term generally applied to the first pair of nerves.

OLIBANUM. This is a fragrant gum resin, the produce of several species of plants, but chiefly of the *Boswellia Serrata*, and the *B. Papyrifera*, the first a native of Amboyna and the mountainous parts of India, and the second of Abyssinia and the east coast of Africa; they both belong to the natural order *Amyridaceæ*. It is now thought that the frankincense used in the religious ceremonies of the Jewish and other ancient churches was gum Olibanum, and not the resinous juice of the *Juniperus Lycia*, which goes by the name Gum Thus, or Frankincense. Olibanum has been used in medicine to check excessive secretions from the mucous membranes, such as bronchitis, leucorrhœa, &c., it also enters into the composition of stimulating plaisters; but it is not nearly so much employed now as it used to be.

OLIVARIS. (Latin *olive*). Resembling an

live; hence the term *corpora olivaria*, applied to two olive-shaped eminences of the *medulla oblongata*. See *Brains*.

**OLIVE.** The common Olive tree called by botanists *Olea Europaea*, belonging to the natural order *Oleineæ*, is a shrub extensively cultivated in Southern Europe and Syria, for the sake chiefly of its fruit, which is eaten as a table delicacy, and from which



the Olive Oil is extracted by pressure. When fresh and pure this Oil is clear and limpid, of a greenish yellow colour, bland and pleasant to the taste; it is used as a demulcent and emollient, both internally and externally; given in doses of about an ounce, it acts as a mild laxative; it is especially good when there is an irritated state of the intestines, arising from the presence of worms, or from other causes. It is nutritious, and better suited for the inhabitants of warm climates than butter. According to Braconnet, its constituents are *oleine* and *margarine*, in the proportion of 72 parts of the former to 28 of the latter; it is solidified by nitrous acid and nitrate of mercury, and converted into a peculiar fatty substance, which has been called *elaidin*. A gum resin, which in some countries exudes from the bark of the tree, has been found, on analysis, to contain a peculiar principle analogous to gum, which has received the name *olivile*. We are not aware that this has been employed medicinally;

although the bark itself, which possesses an acid and bitter taste, has been used as a substitute for Peruvian bark; and a decoction of the leaves, two ounces put into a quart of water and boiled down to a pint, has been recommended in intermittents, the dose being two ounces three times a day.

Olives are prepared for the table as a pickle, by repeatedly steeping them in water to which quick lime or some other strong alkali is sometimes added to hasten the operation; they are then soaked in pure water, and afterwards boiled in salt and water, with or without an aromatic; they are supposed to create an appetite and to assist digestion, and are commonly taken after a luxurious dinner, when the appetite has become cloyed and surfeited by over-feeding; of course we do not recommend them.

Of Olive or Salad Oil, as it is commonly called, there are various kinds and qualities: from Italy we have the Florence, Lucca, and Gallipoli Oils; the first is the best, and is commonly sold in flasks; mixed with vinegar, it makes the best salad dressing known; some prefer it to butter for frying fish; taken as a demulcent, the common dose is from 1 to 2 drachms; it is usually made into an emulsion with gum and water, and other ingredients, for which purpose it does as well as Almond Oil. See *Oils*.

**OMAGRA** (Greek *omos*, the shoulder, and *agra*, a seizure). Gout in the shoulder.

**OMENTUM** (Latin *omen*, an omen). The epiploon or caul, so called because it was formerly examined for the purposes of augury. The omentum consists of folds of the peritonæum connected together by cellular tissue; the different portions are named—1. Hepato-gastric, or smaller Omentum; 2, the Great Omentum; 3, the Colic Omentum; 4, the Gastro-splenic Omentum. One of the chief causes of the protuberance of the abdomen in very stout persons is occasioned by the overloading with fat the membrane which is spread over the intestines, most likely as a protection against cold, and which is called the Omentum; it is this which often projects in ruptures, creating serious inconvenience, and sometimes fatal consequences. See *Hernia*.

**OMPHALOCLE** (Greek *omphalos*, umbilicus, and *kele*, a tumour). A rupture at the umbilicus (see *Hernia*). From this root we have also *Omphalotomia*, the separation of the umbilical cord or navel string.

**ONANISM.** The crime of Onan, or self-pollution. This crime is, by youths coming to the age of puberty, indulged in to a fruitful extent; and it is a fruitful source



of impotence, and every kind of bodily and mental weakness. "Some of the most lamentable instances," says Dr. Thompson, "of youthful decrepitude, nervous affections, amaurotic blindness, and mental debility and fatuity in early life, which come before the medical men are traceable to this wretched practice." And he further says, that whenever young people about the age of puberty exhibit unaccountable symptoms of debility, particularly about the lower limbs, with listlessness and love of solitude, look dark under the eyes, &c., the possibility of vicious practices being at the root of the symptoms should not be lost sight of. It is from this and other evil practices of the like nature that the advertising quacks reap their greatest advantage, promising secret and speedy cures for infirmities brought on by means which it is a sin and shame even to think about—infirmities which are often irremediable, and which at no time can be relieved, except by an entire abstinence from the criminal indulgences which caused them, and by a long course of tonic treatment; thus only can an impaired constitution be strengthened and invigorated. In all such cases, a professional man should be consulted; the debility and other bad symptoms brought on by the practices hinted at, cannot be at once relieved, and the treatment must depend very much upon constitutional and other peculiarities.

**ONEIRODYNIA** (Greek *oneiros*, a dream, and *odyne*, pain). In this term are comprehended nightmare, somnambulism, and all disturbances of the imagination during sleep. See *Dreaming, Nightmare*.

**ONION.** This familiar plant, the *Allium Cepa* of botanists, is thought to have come originally from Egypt, where it was an object of worship. For the properties and uses of this and other members of the genus *Allium* (see that head).

**ONISCUS ASSELUS.** A scientific name for



the wood-louse or slater (see *Millipedes*).

**ONYX** (Greek for the finger nail). A term applied to a small collection of pus in the anterior chamber of the aqueous humour of the *Eye* (which see). It is so named from being shaped like a finger nail; it is of the same nature as *hypopyum*; some call by this name a small abscess formed between the layers of the

cornea. An abscess formed beneath or near to the finger nail is termed *Onychia*; this is an ulcer often very difficult to heal; and as the success of any remedial measures will depend greatly on the general vigour of the system, the treatment must be general, as well as local. Warm poultices will generally relieve the irritation about the nail, and when they have effected this object, Black-wash should be applied to the part; afterwards dress it with simple *Spermaceti Ointment*; or if this does not subdue the inflammation, Cold Water dressing had better be used for a time.

**OPACITY** (Latin *opacitas* from *opacus*, opaque). A term applied to any thickening of the cornea, or any change which affects its transparency, and which is popularly called film. There are various kinds or degrees of Opacities, such as, 1st *Albugo* or *Leucoma*, the denser form; 2nd *Haziness* or *Nebula*, the slighter form; and 3rd *Macula*, a mere patch, or speck (see *Eye, Sight*).

**OPERATION** (Latin *opus*, a work). Any exercise of the surgical art, performed by the hand, or by the assistance of instruments; it is termed *simple* when one kind of operation is required, and *complicated*, when it consists of more than one kind, as in cataract, when both incision and extraction is necessary. There are several simple surgical Operations which can be easily performed by a careful nurse or mother, such as the extraction of a thorn or splinter, lancing the gums, cutting of an in-growing toe nail, opening a small abscess or fistula, &c.; and sometimes the tying of a severed artery, cupping, or bleeding, may be necessary to save life. Directions for the performance of all these will be found under their several heads, and for some of them under the head of *Accidents*.

**OPHIASIS** (Greek *ophis*, a serpent). A term applied by Celsus to a variety of *Orea*, a kind of baldness, which spreads in a serpentine form round both sides of the head, from the occiput: that which spreads in irregular patches is termed *Alopecia*.

**OPHTHALMIA** (Greek *ophthalmos*, the eye). Inflammation of the eye, properly termed *Ophthalmitis*. Under the head of *Eye* we have already spoken of the several forms of Ophthalmic disease which occur in this country, and given such directions for their treatment as are likely to be of service to the unprofessional reader: we may here go a little more into detail, and state that Ophthalmia has by some surgical writers been divided into seven distinct kinds, viz., 1st, the *Catarrhal*, arising from atmospheric

causes, or peculiarities, and popularly called cold or blight; it is characterized by an increased mucous discharge, as described by the term *Ophthalmia mucous*; it is seated in the conjunctiva. 2nd, the *Purulent*, which is inflammation of the most acute kind, attended with a purulent secretion; it may be divided into the *Purulent Ophthalmia* of infants, and that of a mature age, which is the *Egyptian Ophthalmia*, being that which is endemic in Egypt, and was brought from thence into Europe by the French and English troops: it is undoubtedly contagious. Another form is the *Gonorrhœal Ophthalmia*. (See *Gonorrhœa*). 3rd, the *Rheumatic*, which results from cold, and is chiefly confined to the sclerotica; this may be divided into the *Catarrho-rheumatic*, which is active inflammation, embracing the mucous and fibrous coats of the eye; the *Erysipelatous*, which is a modification of conjunctival inflammation; and *Pustulous*, an inflammation of the mucous membrane, attended with the formation of pustules. 4th, the *Serofulous* or *Strumous*, an external inflammation of the eye, occurring in serofulous subjects. 5th, in this division we have three varieties, the *Variolous*, the *Morbillus*, and the *Scarlatinous*, the first occurring in small pox, the second in measles, and the third in scarlatina. 6th, the *External*; and 7th, the *Internal*; the first being inflammation of the outer coats of the eye; and the second, idiopathic inflammation of the internal texture of the eyeballs.

*Ophthalmia*, *Ophthalmoplegia*, and *Ophthalmoptosis*, which signify respectively—the first pain in the eye; the second, paralysis of one or more of the muscles of the eye; and the third, paralysis of the globe of the eye.

**OPHTHALMOSCOPE.** This is a newly invented instrument, intended to assist the surgeon in his diagnosis of eye disease; it consists of 1st, a flat circular mirror with a small round hole in its centre, and placed at



one extremity of a short handle; and 2nd of a small magnifying glass. In using this instrument, the patient is placed with his back to the light, and with his head slightly thrown backward, while the surgeon standing in front of him throws the light from

the mirror directly on the eye, making his observations on the state of this organ through the perforated centre of the reflecting medium. When necessary, he makes use of the magnifier, holding it against the back of the mirror, so as to intervene between his own eye and the perforation. The light thrown upon the eye by this instrument is, necessarily, much more powerful than any which could be obtained in the ordinary way.

**OPISTHOTONOS** (Greek *opistheo*, backwards, and *teino*, to bend). Tetanus of the exterior muscles, by which the body is bent rigidly backwards. See *Tetanus*.

**ORIUM.** This is the partially dried juice of the white or Eastern Poppy—the *Papaver Somniferum*, of the natural order *Papaveraceæ*; it is obtained by cutting the unripe capsule, from which a white juice exudes, and appears in the form of tears on the edges of the incisions; this is scraped off, put into earthen vessels, moistened with saliva, and then worked up, with a wooden spatula, in the sun, until it attains a proper consistency; it is then formed into cakes, and wrapped up in tobacco or poppy leaves, in which state it is the Opium of commerce, having, by exposure to the air, assumed a dark colour. This is, perhaps, the most important drug in the whole range of the materia medica; we obtain our supply of it chiefly from Turkey and India,—that from the former country is generally preferred: applied externally, it acts as a sedative, lulling pain; given internally, in moderate doses, its first effect is that of an excitant; it quickens the pulse, and increases the heat of the skin; but these symptoms are soon followed by a diminution of sensibility, and a tendency to sleep; if pain is present, it is abated or altogether banished, irritation is diminished, and the muscular system relaxed; the secretion of the bowels is lessened by it, but that of the skin increased, and thus it acts as a sudorific. When taken continually in small doses it causes a kind of intoxication; in over-doses it is a narcotic poison, causing deep sleep, with contraction of the pupil of the eye, which results in coma and death. (For treatment, in such case, see *Poisons*).

Opium is undoubtedly the best anodyn. and soporific with which we are acquainted; but on certain systems its action is directly opposite to that which we commonly look for, therefore it is necessary to watch its effects very carefully; bearing in mind that its primary operation is that of a stimulant, we should avoid giving it in a state of high fever, or inflammation; a parched tongue



and a dry skin, should generally forbid its use; but if there is only moderate fever, with a moist skin, and no cerebral disorder, it may be safely administered to alleviate pain and subdue irritation: in bronchitis, combined with Camphor and Ipecacuanha—as in Paregoric and Dover's Powder; in cancer, delirium tremens, and all neuralgic disorders, it is constantly prescribed; in convulsive disorders, it is given as an antispasmodic; in many cases as a diaphoretic; and in dysentery and diarrhœa, alone, or combined with astringents, there is no medicine so good as this.

The narcotic properties of this drug are chiefly owing to the alkaloid, *Morphia* (which see); of this, good Opium contains about 12 per cent; it is somewhat less stimulating in its action than the juice of the poppy, of which it is the most active principle in combination with *Meconic Acid* (which see).

The common dose of Opium for an adult is from 1 to 3 grains; for children, it should be given in very minute doses, if at all; but it is best avoided altogether: of the mischief which results from the practice of giving children "sleeping-stuff," we have already spoken under the head of *Godfrey's Cordial*, &c., and we would take this opportunity of again warning our readers against a most pernicious custom. Opiates should never be given to the young, except there is a pressing necessity for them, and then very carefully, and not often. There are many officinal preparations of Opium; we give a list of the principal, with their doses:—Extract,  $\frac{1}{2}$  a grain to 3 grains; Pill, 5 to 10 grains; the same, with Calomel, 5 to 10 grains; Lozenges contain each 1-10th of a grain of the Extract; Confection, 10 to 60 grains; Tincture (Laudanum), 10 to 30 drops; Ammoniated Tincture, about 1 drachm; Wine, 10 to 60 minims; Battley's Sedative Liqueur, 5 to 20 minims; Black Drop (*Gutta Nigra*), 5 to 10 minims.

There are several preparations which owe their chief activity to the Opium which they contain, although the name of the drug does not appear in their titles: such are the Compound Powders of Ipecacuanha and Kino; the Compound Ipecacuanha Pills, and Pills of Ipecacuanha with Squills; also, the Compound Soap and Storax Pills; the Compound Powder of Chalk with Opium, much used in dysentery and diarrhœa; and the Compound Tincture of Camphor—Paregoric Elixir.

The chief preparations of Opium employed externally are the Opiate Enema, Liniment, Ointment, and Plaister; the

Ointment of Galls with Opium, is an excellent application for Piles.

Any medicine which acts like Opium in producing sleep, &c., is called an *Opiate*, and the principle procured by digesting Opium in Sulphuric Ether, and filtering and evaporating the product, is termed *Opiane*, or *Narcotine*; sometimes, *Salt of Derosnes*, from the name of its discoverer.

*Opium-eating* has in this, as in other countries, assumed the character of a disease; by many persons it is carried to a great extent. We have known as much as a drachm taken in a day. Those who are habituated to the use of this deadly drug require constantly increasing doses, and become in time, like spirit-drinkers, complete wrecks both in body and mind. They generally begin with small quantities, just enough to lull bodily pain, or soothe mental disquietude; but the habit, if encouraged, grows upon, and eventually enslaves them. A confirmed opium-eater cannot be long-lived, and we would most earnestly warn our readers against the commencement of so pernicious a practice.

**OPOBALSAM.** The most precious of all the Balsams, commonly known as the *Balm of Gilead* (which see).

**OPOPANAX.** A gum resin obtained from the *Opopanax Chironium*, a plant of the natural order *Umbelliferae*, which grows



wild in the South of France, Italy, and the Levant. It was formerly held in estimation as beneficial in hypochondriasis, hys-

terria, and asthma; it was also used as an emmenagogue, but modern practice has nearly discarded it as a remedy of very feeble powers.

**OPODELDOC.** This is the Compound Soap Liniment of the Pharmacopœia, being a solution of Soap in Alcohol, with the addition of Camphor, Oil of Rosemary, and strong Liquor of Ammonia; it is an excellent application for sprains, bruises, &c., and may be used with advantage in all cases in which counter-irritation is required. See *Liniments, Soap*.

**OPILATION** (Latin *oppilo*, to close up). An old term for obstruction of any kind, but chiefly of the perspiration. Medicines which had the effect of closing the pores of the skin were termed *Oppillatives*.

**OPPONENS POLLICIS.** The name of a muscle which arises from the annular ligament of the wrist, &c., and is inserted into the thumb, which, by means of it, is brought inwards, so as to meet the fingers.

**OPRIC** (Greek *optomai*, to see). Belonging to the sight; a term applied to the second pair of nerves, to the two *thalami* of the brain, and to the *foramina* of the sphenoid bone, through which the optic nerves pass.

**OPTICS.** Is that branch of natural philosophy which treats of the relation between light and the organs of vision. All that is necessary to be said about it in this work will be found under the heads of *Eye* and *Sight*.

**OPTICAL DELUSIONS.** Are the result of a disordered action of the organs of vision, which may be occasioned by disease affecting the brain, or the optic nerves, or some other part of the delicate machinery by means of which we see; or they may be occasioned by sympathy with disordered functions elsewhere, as in the stomach. These delusions vary considerably in their manifestations; it may be that half an object, or half a word in reading only, is perceived, or real objects in a distorted or exaggerated manner, or those which are altogether unreal; floating specks, flashes of light, &c., before the eyes, come properly under the denomination of such delusions, which are often the result of biliary derangements, and may frequently be removed by a Blue Pill and a Black Draught or two. See *Diseases of the Eye*.

**ORA SERRATA.** A dentated line constituting the posterior edge of the ciliary processes (see *Eyelids*).

**ORANGE.** This plant, whose delicious pulpy fruit is so universal an article of consumption, is the *Citrus Aurantium* of botanists, belonging to the natural order *Auran-*

*taceæ*; it is extensively cultivated in every region of the earth where there is sufficient warmth to bring it to perfection, but our chief supply comes from Spain, Portugal, the Azores, and the islands of the Medi-



terranean. The China Orange, of which the St. Michael's appears to be a variety, is perhaps the most delicious, and this is grown largely in Malta and Provence. The juice of the sweet Orange which consists principally of mucilage, sugar and citric acid, is one of the most wholesome vegetable juices known; it is peculiarly grateful to invalids, who, however, should not swallow the cellular pulp in which it is enclosed, as this is indigestible, and is likely to produce disorders of the bowels, through which it passes unchanged.

The part of the Orange which is chiefly used medicinally is the rind, and the kind which is best for this purpose is the Seville Orange, which is an agreeable aromatic bitter, possessing tonic, stimulant, and slightly astringent properties, it is much prescribed in combination with stronger bitters, such as Gentian, and Quinine, and makes one of the best vehicles for the administration of Epsom and other neutral salts, which it renders less offensive to the palate and stomach. Orange marmalade upon bread is a good breakfast diet for dyspeptic patients; and the Confection of Orange Peel, in doses of from 1 to 4 drachms may also be taken by such with advantage. The Infusion may be easily made by pouring on an ounce of the dried Peel a pint



of water, and letting it stand until cold then strain and take as a stomachic a wine-glassful twice a day; a little lump sugar and lemon juice will render it more pleasant to take. Syrup of Orange is made by infusing  $2\frac{1}{2}$  ounces of the dried Peel in a pint of boiling water, for about twenty minutes, then strain and add two pounds of lump sugar, boil for ten minutes; chiefly used for sweetening and flavouring summer drinks and medicines; for Orangade (see *Beverages*). The Oil of Orange Peel, is also used for flavouring chiefly, it may be taken as a stomachic on sugar in doses of from 1 to 3 drops. The dose of the Tincture is from 1 to 3 drachms, and of the Powdered Peel from 5 to 30 grains. Orange flowers and their distilled Oil, and Waters, are chiefly used as perfumes, but they are also regarded as anti-spasmodic, and to some extent anodyne; the Water is given on the continent for hysteria, in doses of from 1 to 2 ounces. *Orange Peas* are the immature fruit of some kinds of Oranges, they are used for *Issues* (which see).

ORANGE SKIN is a term applied to the deep yellow hue, sometimes observable in the skin of a newly-born infant; it is termed by Sauvages *Ephelis leuca*.

ORBICULARES (Latin *orbiculus*, a little orb). The name applied to two muscles of the face, termed *O. oris* and *O. palpebrarum*, the first constituting the substance of the lips, and the last arising from the outer edge of the orbital process, and inserted into the nasal process of the superior maxillary bone; this it is which effects the closing of the eye. From the same root we have *Orbicular Os*, the small orbled bone of the ear, and *Orbicularis ciliaris*, the white circle formed by the ciliary ligament, marking the distinction between the choroid and iris. (See *Eye*.) The cavity under the forehead, in which this organ is lodged, is termed the *Orbit*.

ORCHIS (Greek for the testes). Hence the term *Monorchid*, applied to the person with but one testicle, *Orchitis*, inflammation of the Testes, and *Orchotomy*, removal of one or more testicle (see *Castration*).

ORCHIS MASCULA. The Male Orchis, a plant of the natural order *Orchidaceae*, from the roots of which, and some allied species, is obtained the *Salep* of commerce, a nutritious and wholesome farina, much used in the East as food, and to some extent in Europe also. When carefully prepared, it is one of the best articles of diet for a weakly or convalescent person (see *Salep*).

A Cut of the male Orchis is inserted in next column; it is a common English plant.



ORGAN (Greek *organum*). A part which has a determinate office in the animal economy. We divide organs into 1st, those of *Circulation*, as the heart, and arteries, veins, capillaries, &c. 2nd, of *Absorption*, as the lymphatic vessels and glands, the lacteals, &c. 3rd, of *Sensation*, as the eye, ear, nose, tongue, skin, &c.; in this we include the muscular system. 4th, of *Digestion*, as the mouth, the stomach, the intestines, &c. 5th, of *Respiration*, as the lungs, the trachea, the bronchi, &c. 6th, the *Voice*, as the larynx, the cartilages and muscles of the throat, &c. 7th, of *Secretion*, as the liver for the bile, the kidneys for the urine, the lacrymal glands for the tears, &c. 8th, of *Generation*, as the testes, pelvis, &c., in the male; the pubendum, uterus, &c., in the female.

ORGANIC MOLECULES. A term applied to certain floating bodies said to exist in the male semen, and which have been regarded as primordial monads of peculiar activity, existing throughout all nature, and constituting the nutritive elements of living matter. Dr. Darwin termed these *vital germs*.

ORIGANUM. The name of a genus of plants, in which are the common and sweet *Marjoram* (which see).

ORIGIN (Latin *origo*). The commencement of a muscle from any part, its attachment to the part it moves is called its *insertion* (see *Muscle*).

ORMSKIRK MEDICINE. A reputed remedy for canine madness, first prepared by a Mr.

Hill, of Ormskirk; it is said to consist of Prepared Chalk,  $\frac{1}{2}$  an ounce; Armenian Bole, 3 drachms; Alum, 10 grains; Elecampane Root, powdered, 1 drachm; Oil of Aniseed, 6 drops; it is ordered to be taken in fresh milk and water, every day for six successive mornings.

**ORTHOPNEA** (Greek *orthos*, erect, and *pneo*, to breathe). An affection in which breathing can only take place when the patient is in an erect position. See *Asthma*.

**Os** or **OSSIS** (Latin for bone). From this root we have *Ossification*, the formation of bone, the first development of which, according to Carpenter, "is preceded by the formation of a cartilaginous structure, which occupies the place the bone is afterwards to take; and it has commonly been considered that the bone is formed by the ossification of the cartilage, or gristle. This, however, does not appear to be the case, for none of the cartilage—*chondrine*—can be found in perfect bone. The process of true bone formation always commences in the immediate neighbourhood of blood vessels, which pass down into canals excavated in the substance of the cartilage; the spots where these vascular canals are especially developed, are termed centres of ossification. We usually find one of these in the centre of the shaft of a long bone, and one at each end; in the flat bones there is generally one in the middle of the surface, and one at each end of the principal projections. Up to the period when the bone attains its full dimensions, the parts which contain the distinct centres, are not connected by osseous (bony) union, but only by cartilage, so that they fall apart when this decomposes; the purpose is to allow an increase in the size of the bone, by the growth of cartilage between its detached portions, which cartilage may give place to bony structure when there is no further need of increase." Such is the theory of bone formation, according to one of the most eminent physiologists of the day, it differs somewhat from that which has hitherto been generally received, but this difference is not material to the purpose of a work like the present. In addition to what is here given, and the remarks made on the subject under the head *Bone*, we may observe that the changes which take place in component particles of bone after its complete formation is effected, appear to go on very slowly, unless a more rapid process is necessary for the reparation of an injury, such as a *Fracture*, which see. As persons advance in years, the deposition of animal matter in the bones gives

place to a great extent to that of a harder and more brittle, and if broken are not so likely to unite and become serviceable again. The joints in old age become stiff and rigid, from this cause; and osseous deposits often take place in structures which hitherto had been quite free from such. Thus we have *Ossification of the heart*, about the valves especially, and the coats of the arteries, giving rise to symptoms of *Angina pectoris*, (which see). Many of the diseases of old age originate in this change in the structure of the arteries, and consequent loss of vital power necessary to keep a healthful state of the circulation. Another part which is very likely to become partially ossified is the larynx. Deposits of earthy matter, analogous to bone in certain osseous affections, has been called *Osteo-sarcoma*. The simple absorption of bone, unaccompanied by secretion of pus—the process by which nature accomplishes the removal of the milk teeth, &c., has been termed *Osteo-anabrosis*. That part of anatomy which treats of bones is termed *Osteology*; a description of them, *Osteography*, the growth of bones; and the ossific diathesis, or affection in which soft parts become indurated by a deposit of osseous matter, is *Osthexia*. From the same root *os* or *ossis*, which, no doubt, comes from the Greek *osteon*, we have also the terms *Osteoma*, a bony tumour; *Ostitis*, inflammation of the bone; and *Ostiopædium*, an osseous or stony mass, into which the fœtus is sometimes found to have been converted in the uterus.

*Ossa Alba*, the name given by Van Hilmont to the precipitate formed by the natural salt of the urine in the production of the calculus; it is the same as that which Paracelsus termed *tartar*.

**OSCHEOCELE** (Greek *oskeon*, the scrotum, and *kele*, a tumour). *Hernia*, when it descends into the scrotum, is so called. See *Hernia*.

**OSCILLATION** (Latin *oscillum*, an image swung upon ropes). This term was applied by Boerhaave to muscular *Irritability* (which see).

**OSITANCY** (Latin *oseito*, to gape). Yawning or *Gaping* (which see).

**OSTREA** (Greek *ostrakon*, a shell). The Latin name of the oyster, the burnt shell of which is sometimes used as an absorbent, under the name *Calx e testis*, Lime from shells.

**OTALGIA OTITIS** (Greek *otos*, the ear, and *algos*, pain). Pain in the ear, which may be divided into internal and external, the last of which generally ends in suppu-



ration, or what is commonly called an *imposthume* or *imposteme* in the head; a term corrupted from *aposteme*. When this becomes chronic it is called *Ottorrhæa* (which see), also *Ear* and *Ear-ache*.

**OTTO, OR ATTAR OF ROSES.** This is, in truth, the oil of roses procured by distillation from the petals; it is well known as a powerful and delicious odour, but has not, that we are aware of, been employed medicinally.

**OVUM** (Latin for an egg). A small vesicle within the ovarium, containing the embryo or elements of the fœtus. Hence *Ovales*, a term applied to a foramen between the auricles of the fœtus; *Oviduct*, a name sometimes given to the Fallopian tube, which conducts the ovum to the uterus; *Oviparous*, applied to animals which produce their young in eggs: *Ovorum testæ*, eggshells. *Ovarium*, diminutive of *ovum*, is an ovary, or seed vessel. The ovaries, anciently called *Testes Muliebris*, are the two oval bodies placed in the broad ligament (see *Testes*). *Ovaliger* means a little egg, the name of a kind of hydatid supposed to be found in the articulation of the wrist (see *Hydatid*). *Ovulum* also means a little egg, and is applied to a cell of the Ovarium attached to this organ by what is called the *ciatrix*.

**URETIC ACID** (Greek *ouron*, urine). An acid discovered by Proust and Bergmann, and shown by Kalproth to be bi-phosphate of soda.

**OX GALL.** Some years ago the Gall or Bile of the Ox was quite a fashionable remedy for habitual constipation; in many cases it was undoubtedly found serviceable, but not perhaps in the majority, and it therefore fell very much into disuse. Where there is a want of tone in the stomach, and especially with pregnant women, it often acts extremely well; it may be prepared for medicinal purposes in the following manner: Buy a Gall bladder and turn out the contents in a shallow vessel, of metal is best; put it in an oven and let it evaporate until it becomes sufficiently firm to make into pills, of which one or two, of 5 grains, each, may be taken twice a day.

**OXALIC ACID.** An acid found in the state of oxalate of lime, in the roots of several plants; and in the state of binoxalate of potash, in the leaves of the *Oxalis Aectosella*, and some species of *Rumex*. Its salts are called *Oxalates*. The Essential Salts of Lemons, or Salt of Sorrel, is the binoxalate of potash, and the oxalate of lime is the basis of the Mulberry Calculus. See *Acids*.

As poisoning by Oxalic Acid is not of unfrequent occurrence, in consequence of its close resemblance to Epsom Salts, a few simple directions for such an emergency had better be given here. When a large dose of the poison has been swallowed, the first and almost immediate effect is complete prostration of strength; the patient sinks at once into a state of collapse, and dies within half an hour after taking the poison; severe pain at the stomach, and vomiting, sometimes precede this state of stupor, but not always. When there is vomiting, the expelled matter is very acid and dark in colour. In such a case, only the most prompt measures can be of any service; the knowledge that Oxalic Acid (in itself readily soluble), forms, in combination with lime and magnesia, insoluble, and comparatively inert compounds, teaches us that Chalk or Whitening is the best remedy; and, happily, one or other of these substances is generally at hand; if not, some old Mortar scraped from the crevices of a wall may be mixed up with water and swallowed. Vomiting should be by all means excited, and plenty of water given to dilute the poison, and favour its rejection from the stomach. In the collapsed stage, stimulants will be required—Brandy is the best; should the patient survive, there is likely to be great irritability of the stomach for some time; for this, soothing demulcent drinks, and a milk diet should be given, and a few leeches may be applied to the pit of the stomach.

**OXIDES.** (Greek *oxys*, acid or sharp). These are chemical compounds of oxygen, with substances which are neither acids nor salts; they were formerly called *ealees*. In medicine, the metallic oxides are an important class of bodies; they are distinguished by certain prefixes, which denote the proportion of oxygen which they contain, such as *prot-oxide*, *deut-oxide*, *trit-oxide*, &c., these three meaning first, second, and third. When the base is saturated with oxygen it is called a *per-oxide*, per denoting very much.

**OXYCROCEUM.** A warm discutient plaster, consisting of Wax, Rosin, Pitch, Turpentine, Saffron, and several Gums; at one time much used as a stimulating application.

**OXYGEN** (Greek *oxys*, and *gennao* to generate). The name of a gas which forms about a fifth proportion of atmospheric air, and is essential to the respiration of all animals; the above name was given to it by Lavoisier, from the supposition that it was the sole generator of acidity; as it was supposed also to be the sole supporter of combustion. Modern scientific research

have proved that neither hypothesis is quite correct, although sufficiently so perhaps to justify the name applied to this gas. Oxygen for ordinary purposes may be obtained from the binocide of manganese by the application of heat; but in a more pure state for chemical investigation, or analysis, from chlorate of potash. Oxygen has been described as a permanently elastic fluid invisible, inodorous, and a little heavier than atmospheric air, which it forms in union with azote or nitrogen. Water contains about 89 per cent. of it, and it exists in most vegetable and animal products, salts and oxides. It is not absorbed by water, and is neither acid nor alkaline. It has a powerful attraction for most of the simple substances, especially for the electric positive bodies; the act of combining with which is called *oxidization*. The compounds thus formed are divided into *Acids* and *Oxides*; among the latter are the alkalies, and almost all salifiable bases. Pure Oxygen is too highly stimulating for animal existence, although a certain proportion of it is necessary, and it is precisely according to the proportion which it bears to the nitrogen, that the air we breathe is healthful or otherwise. Oxygen is evolved from trees and plants by the action of the sun's rays on the moistened leaves; and these leaves, while they give out Oxygen, absorb carbonic acid from the atmosphere; just the reverse is the case with animals, and thus the balance is maintained.

Oxygen has been called by Priestley, *Dephlogisticated air*; Scheele, *Empyreal air*; Condorcet, *Vitalair*: (for further particulars respecting it, see *Gases*.)

**OXYGENATION.** Is a term sometimes used as synonymous with *oxidation*; it differs from it, however, in having a more general import, every union with oxygen being an Oxygenation; whereas, oxidation takes place only when an oxide is formed. There are several other compound terms which imply the presence of oxygen, such as *Oxy-iodine*—a name given by Sir H. Davy to anhydrous-iodic acid; compounds of Oxygen and its compounds with metallic bases were called *Oxyiodes*, and sometimes *Iodates*: *Oxy-Muriatic Acid*, the former name of *Chlorine* (which see); *Oxyprussic Acid*, a name formerly given to *Chloro-cyanic* or *C. Prussic* acid, from its being supposed that the hydrocyanic acid had acquired oxygen in being mixed with chlorine. Another class of terms compounded of *Oxy* had referred to acuteness of sense or functions; thus *Oxyopia*, signifies acuteness of sight; *Oxyphoea*, sharpness or shrillness of voice.

Then, again, this prefix may be applied to shape, as *Oxyurus* (sharp-tailed), the Vermicular Ascaris, a parasitic animal sometimes found in the uterus or its appendages, the intestines, &c., (see *Worms*).

**OXYMEL.** Is a compound of Honey and Vinegar, very useful in some forms of catarrh and cough; it may be either used alone, or combined with other medicines.

Simple Oxymel is made by boiling together 5 pounds of Honey, with 8 ounces of Water, and 7 ounces of Acetic Acid: and Oxymel of Squills, which is more expectorant, is made by mixing  $\frac{1}{2}$  a pound of Honey with 4 ounces of Vinegar of Squills, and applying heat to effect a combination of the ingredients. See *Squills*.

**OYSTERS.** Dr. Paris altogether condemns these, to most palates, delicious testaceans, as a food for invalids, but on this subject, as on many others, doctors differ, for some recom-



mend them strongly; that they are very nutritious, especially when uncooked, is generally conceded; but some stomachs there are which cannot readily digest them, and others which, although they may be extremely delicate, do so easily; so that without a trial one can scarcely tell how they will suit a particular patient; and as they seldom or ever, like some shell fish, cause symptoms of irritant poisoning, there can be little danger in making the trial; only one or two should be taken at a meal, and the allowance gradually increased to six or eight, taken raw with a little pepper, and vinegar if agreeable.

**OZÆNA** (Greek *oze*, a stench). An ulcer situated in the nose discharging a fœtid purulent matter, and sometimes accompanied with caries of the bones. To render



the factor of this discharge less offensive a lotion composed of chloride of Zinc and Rose Water may be used; about 2 grains of the former to 1 ounce of the latter will be the proper strength; it should be injected upwards through the nostrils with a small syringe, or poured into the hand and snuffed up two or three times a day; or, inject simple red wash (Sulphate of Zinc, Tincture of Lavender and Water), and improving the general health with alteratives, and frequent use of Glycerine. Chief internal remedy:—Iodide of Potassium, 24 grains; Bi-carbonate of Potash, 2 drachms; Compound Decoction of Sarsaparilla, 3 ounces; Water, 5 ounces: two tablespoonfuls 3 times a day. Iodide of Potassium to be gradually increased.

**OZMAZOME** (Greek *osme*, odour, and *zomos*, broth). A peculiar principle obtained from muscular fibre, having the taste and smell of broth; it is on this that the peculiar and agreeable flavour of cooked meat depends. It is most manifestly developed in decoctions of meat, such as soups, gravies, &c.

**OZMIUM** (Greek *osme*). A new metal discovered among platinum, and so named from the pungent and peculiar smell of its oxide.

**OZMUNDA REGALIS**, or Royal Fern, is a plant of the natural order *Filices*, or ferns,



whose root-stocks were formerly employed medicinally. They were thought to be good for the rickets, scrofula, and worms; but are not now held in much estimation.

**OZONE**. A principle of, or substance in, the atmosphere, for the discovery of which the scientific world is indebted to M. Schönbein; its liberation appears to depend very much upon that of electricity; and it is generally most abundant in summer during stormy weather, and in winter when there is snow falling. From the action of Ozone on the respiratory organs, its discoverer considers that it is likely to be instrumental in producing those catarrhal epidemics which are known to prevail frequently without any assignable cause. Some consider it to be oxygen in a peculiar condition. As yet, however, the nature of the substance, if such it be, is too imperfectly known to allow of a decided opinion.

**PABULUM**. Food, aliment. The animal heat and spirits are called the *Pabula vitæ*, or food of life.

**PAIN**. We are apt to look upon Pain as an unmitigated evil, but it is not so; rather should we regard it as a kind, though sometimes a severe friend, who warns us of danger in the shape of disease or injury, and points out where to apply the remedy. Insensibility to Pain would be by no means so great a boon as most of us would suppose, much as we should desire it; physically, as well as morally, it is good for us to suffer; for Pain is a great teacher of salutary lessons as regards our temporal, as well as our eternal welfare. We feel it in the head, or the chest, or the abdomen, or one or other of the limbs, and, by it, we are admonished that there is something wrong in our habits or mode of life; that we have eaten or drunk too much, or of that which is unfit for us; or indulged in excesses of some kind, or overtaken our powers; or it may be not exerted or exercised them sufficiently: we have in some way impaired this or that part of our wondrously fashioned structure; or it may be that there is some insidious disease eating into some part of our system, and sapping our vital powers, the only indication of whose progress is the Pain which it occasions.

Sensibility to Pain varies greatly in different individuals, and in accordance with the state and condition of the nervous system of the same patient; it is most severe when the nerve itself is the seat of disease or injury, as in tie doloureux and other forms of neuralgia; most usually it is sympathetic, the nerves being only affected as the organs of sensation, through which

all Pain must necessarily be felt. Next to any affection of the nerves themselves, that of the bones and joints probably causes the greatest suffering, probably on account of their unyielding nature; when swollen by disease they press upon the nerves, and so produce this result. Some parts which are most insensible in a state of health are most actively sensitive when they become inflamed: such is the case with some of the internal organs, and also with the bones, joints, and teeth.

Regarded as a *symptom*, we may say that Pain in active inflammation, as well as in its hysterical simulations, is always present and prominent; it is pretty sure to be felt in congestion of any part; in all malignant affections it is generally very acute; in most kinds of fever it is complained of in the limbs and back; in indigestion and dyspepsia we have it in the stomach, as we do also in colic and spasms of that part; "a stitch in the side," as Pain there is commonly called, may be owing to flatulency, and when it is in the chest, and increased by inspiration, there is reason to suspect an attack of pleurisy, or pneumonia, or a broken rib. Gripping in the bowels may be due to colic, or to the presence of some acrid kind of food, or to inflammation of the peritoneum, or to diarrhoea, dysentery, or cholera; throbbing Pains in the temple, darting or shooting Pains in the breast, flying Pains about the shoulders and elsewhere, dull heavy Pains in the head, and a hundred other Pains that could be named, are all characteristic of some particular form of disease, although they do not all indicate the exact parts to which the disease is referable, they may be nervous sensations telling that mischief is going on somewhere, and calling on the sufferer to investigate the matter, and apply remedies; thus headache commonly arises from a disordered stomach, and a blow on the head will often cause Pain in the bowels, and sickness.

The alleviation of Pain is one of the great objects of all medical treatment, and this chiefly on account of its exhaustive nature—its debilitating effect upon the constitution, which is greater or less, of course, in proportion to its severity, and to the degree of nervous susceptibility of the patient; it is quite possible for a person to die of Pain alone; hence the value of anæsthetics and opiates which deaden sensibility, and render possible, and indeed easy, the most formidable operations, the agony of which could scarcely be borne by weak and delicate patients. We should not, however, resort

to these means of alleviating Pain too hastily, or too frequently; there is always danger attending their use, and it is frequently better for suffering to be borne than to be thus relieved; opiates always interfere, more or less, with the action of the secretory and excretory functions of the body; and under the action of anæsthetics, such as ether and chloroform, insensibility has resulted in death. In all cases, therefore, the advantage to be gained by the alleviation of Pain, must be well weighed against the disadvantages, and probable danger of resorting to the necessary means.

**PAINTER'S COLIC.** Is the result of the absorption of lead into the system; its *symptoms* are similar to those of *Colic* generally (which see), with partial paralysis often superadded: sometimes this latter symptom will show itself while the patient is in an average state of health, and previous to, or conjointly with the writhing pains in the stomach, cramp in the legs, and pains in the head and limbs; but more frequently there will be two or three attacks of the *Colic* before the paralysis comes on.

**Treatment.** The same as in other forms of *Colic*; if the spasm is violent, and the patient of a full habit, blood may be taken from the arm; in any case, warmth should be applied to the seat of pain; friction, with stimulating liniments; the feet and legs should be placed in a mustard bath, and a full dose of Calomel and Opium given, followed in about an hour with one of Castor Oil; the injection of warm water into the bowels frequently affords great relief; if they are not freely opened by the above means, stronger purgatives should be given, such as Colocynth and Calomel, or 1 drop of Croton Oil with Castor Oil. From the first or second attack of Painter's *Colic* persons generally recover; but, unless the occupation is changed, other attacks will follow, and the patient will become a miserable cripple. See *Palsy, Paralysis*.

**PAINTER'S PURGE.** A medicine sometimes given in the form of colic above described, and consisting of  $\frac{1}{2}$  an ounce of Senna boiled in a pint of water, with  $\frac{1}{2}$  an ounce of Sulphate of Magnesia, and 4 ounces of Antimonial Wine, added to the strained liquor, while hot; a wineglassful may be taken every 3 or 4 hours, until relief is obtained.

**PAINTING.** Very marked injurious effects have often arisen from inhaling the atmosphere of newly-painted houses; that the head-ache, sickness, and other uneasy feelings which arise from this will pass away, and leave no after ill-effects, is the belief of



most persons, but we have known cases in which the poison, though slight, has worked upon the system, and materially affected the health through life. That it is a poison which is thus inhaled, we have sufficient evidence in the circumstance that on the delicate lungs of a song-bird it acts as such, causing death very rapidly: whether, as some say, the injurious effects are produced by the fumes of the turpentine used in oil-paints, or to the subtle emanations of the lead, we cannot say; but we would warn our readers to avoid, by all means, living or sleeping in newly-painted houses; or, if they are obliged to do this, to admit as much fresh air as possible, and to be out of doors as much as circumstances will permit; children, especially, should be kept away from this morbid influence.

**PALATE** (Latin *palatum*). The roof of the mouth; at the back of it is situated the Soft Palate (*velum palatum*). The arched ridge which forms the roof of the mouth, and is distinguished as the Hard Palate; commences behind the upper teeth, extends backwards, and merges in the Soft Palate, which is a fold of the mucous membrane, lining the whole of the mouth; from its centre depends the *Uvula* (which see), and from each side of which proceed two other folds of membrane, having between them the *Tonsils* (which see); these folds, by closing over the roof of the tongue, prevent the food which is in the act of being swallowed from passing back into the mouth, while the Soft Palate bars its passage into the nose. Those who suffer from indigestion have frequently small blisters on the membrane which covers the Hard Palate, for which no local application will be of much service. There is sometimes a congenital deficiency of the Hard Palate, and both speech and taste are imperfect in consequence; the former may be amended by a metallic plate introduced to fill up the gap. Sometimes the fissure extends through the Soft Palate, and divides the uvula into two parts; this defect is commonly associated with hare-lip, and can only be repaired by an operation, which from the improvements introduced by Fergusson and others, is now generally successful. See *Nose, Throat, &c.*

**PALATO-PHARANGEUS**. The name of a muscle which arises from the arch of the palate, and is inserted into the thyroid cartilage and the pharynx; it draws the uvula downwards and backwards, and closes the back of the nostrils.

**PALLIATIVES** (Latin *pallium*, the outer robe of the ancients). Medicines for relieving pain. These are, in many cases, all

that even the professional man can administer, and they must necessarily form a very large proportion of the remedies available in domestic treatment, in which the chief aim is, or ought to be, to mitigate pain, and relieve the most urgent symptoms, until professional aid can be obtained. Still, while recommending to our readers the use of palliatives, we would urge upon them also the necessity of due caution, lest they "kill" while attempting to "cure." In all cases of emergency, we say, send for the Doctor; but if, as is frequently the case, his help cannot at once be had, resort to such palliative medicines and measures, as your knowledge and experience, aided by these pages, enables you to apply.

**PALM**. The inner and softer part of the hand; the framework of which, and of the back, is composed of the metacarpal bones (see *Hand*). The *Palmar Arch* is a branch of the radial artery which passes over these bones; and the *Superficial Palmar Arch* is a continuation of the ulnar artery, which also crosses the metacarpus. The *Palmaris longus*, and *brevis*, are two muscles of the Palm, whose skin is stretched and contracted by means of the latter of these.

**PALMA CHRISTI**. Is a species of Palm tree, from which is obtained *Castor Oil* (which see).

**PALM OIL**. Is obtained from the kernel of the Cocoa-nut tree, and some other species of Palms; it is thought to be especially softening to the skin, and is used as an external application, like Olive and other *Oils* (which see).

**PALO DE VACCA**. The Cow-tree of the



Caracas and Cordilleras, whose scientific name is *Galactodendron Utile*; it yields an

abundant supply of vegetable milk, equal and similar to that obtained from the cow, only that it is slightly viscid, and somewhat different in its composition, more than half of its bases being wax and fibrin, a little sugar, a magnesian salt, and water; it is wholesome and nourishing, and has an agreeable balsamic odour. The natives of the countries where it is produced drink it in large quantities, and are said to grow fat upon it.

**PALPATION** (Latin *palpo*, to feel). The act of feeling; a method of examining the abdomen by touch or pressure for the purpose of ascertaining its size, form, &c. From the same root we have *palpi*, feelers, as of some insects; and probably also *Palpebræ*, the *Eyelids* (which see).

**PALPITATION** (Latin *palpito*, to throb). An increase in the force or frequency, or both, of the heart's contraction; when it results from loss of blood, it is termed *reaction*. Palpitation of the Heart is a very common affection; it may amount to only a slight fluttering, or to a violent beating or throbbing, and may be either regular or fitful and uncertain; it is common with young persons of both sexes, but especially hysterical females, and is easily brought on by any unusual mental emotion, as well as by much or too violent bodily exertion. See *Heart*.

**PALSY**, Probably contracted from the Greek *paralysis* (which see).

**PAMPINIFORM** (Latin *pampinis*, a tendril, and *forma*, likeness). Resembling a tendril; a name applied to the spermatic cord.

**PAN** (Greek for all). There are several medical terms which have this prefix, such as *Panchrestus*, applied to medicines in the same sense as *Panacea*, from their real or presumed general usefulness; *Pandemic*, synonymous with *Epidemic*; *Pantagogues*, medicines which expel all morbid matters; *Pantaphobia*, a fear or dread of all things; old authors use this term to express some of the symptoms of hydrophobia. Also

**PANACEA** (Greek *pan*, all, and *akonai*, to heal). Any drug or preparation said to be a remedy for all kinds of diseases, which is simply an absurdity. In some of the old Pharmacopœias we find the name *Panacea* applied to several preparations of a legitimate character: thus Sulphate of Potash was termed *P. Duplicatio*, and *P. Holsatica*; Kermes Mineral, *P. Glauberiana*; Submuriate of Mercury, *P. Mercurialis*; and Saffron, *P. Vegetabilis*.

**PANADA**, OR **PAP** (Latin *panis*, bread). This is bread boiled in water to a proper

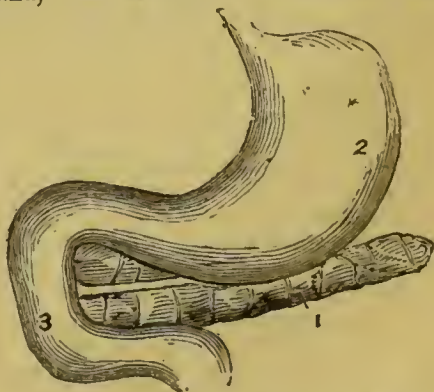
consistence, and then beaten up smooth with a little sugar and milk; it is chiefly used as food for *Infants* (which see).

**PANCAKES**. Are decidedly unsuitable for invalids; the forms of making them vary greatly: in most of them wheaten flour forms the principal foundation, combined with eggs, milk, and butter, dripping, or lard; they are lightest, when made with perfectly clean, newly-fallen snow, and most wholesome with a little salt and ginger added. For receipts, see *Wife's Own Book of Cookery*.

**PANARIS** (Greek *para*, near to, and *onyx*, the nail). Sometimes called *Panaritium*, corrupted from the Latin *Paronychia* or *Whitlow* (which see).

**PANCHYMAGOGUES** (Greek *pan*, all; *xymos*, juice; and *ago*, to expel). The name formerly applied to purgatives which caused evacuations, mixed nearly equally with the humours of the intestinal canal; thus calomel was called a Panchymagogue.

**PANCREAS** (Greek *pan*, and *kreas*, flesh). Literally all flesh; the name given to a gland which is situated transversely in the abdomen behind the stomach; it is made up of numerous small glands, the ducts of which unite and form the *Pancreatic duct*, through which the fluid secreted by the gland, and called the *Pancreatic juice*,



passes into the duodenum, through an opening common to it and the bile, combined with which, it mingles with the food in a state of pulp, called chyme. The use of the Pancreatic juice has not been clearly ascertained; it consists of albumen, salivary matters, and osmazome, and may be intended to neutralize the acid of the partially-digested food, and render it fit for the purposes of nutrition. The shape of the Pancreas is that of a long flattened lobe, about six inches in length; its ordinary weight is about four ounces; at the front part of the head of it is a fold of the gland,



which completes the canal of the superior mesenteric vessels, and is called the Lesser Pancreas. In cattle this organ is called the *Sweetbread*, a delicacy with which our readers must be sufficiently familiar, and in which they have an opportunity of studying the structure of the gland, if they are so inclined. The foregoing cut exhibits its form and position in the human system. 1 is the Pancreas; 2, the lower portion of the stomach; 3, the duodenum (see also *Abdomen*).

**PANDICULATIO** (Latin *pando*, to spread). A term applied to an elongation of the exterior muscles.

**PANNICULUS CARNOSUS** (Latin *panniculus*, diminutive of *pannus*, a covering, and *caro* or *carnis*, flesh). Applied to the fleshy covering of any part: *Pannus*, means literally a piece of cloth, or a rag. This is the designation of that state of vascularity of the cornea, in which the mucous covering is so loosened and thickened as to present the appearance of a dense pellicle.

**PAPAYER**. The name of a genus of plants belonging to the natural order *Papaveraceæ*, in which are the Red and White Poppies. See *Poppy*.

**PAPILLÆ** (Greek *pappos*, the sprout of down, or buds). This term denotes the small projections which constitute the roughness of the upper surface of the tongue. They are distinguished as *lenticular*, which are situated at the posterior part of the organ; *fungiform*, near the edges, presenting a rounded flat head, with a narrow pedicle or footstalk; conical, sometimes called *papillæ medice*, occupying almost the whole of the upper surface, and resembling small cones; and *filiform*, or thread-like, observed quite at the edges of the *Tongue* (which see). *Papillæ* is also a term applied to the nipple which arises in the middle of the areola of the mammae (see *Breast*), and to the small flattened prominence formed by the optic nerve in the interior of the globe of the *Eye*; this is called *Papilla cornea*.

**PAPPUS** is the Greek term applied to the seed crown, or little tuft of hair which crowns the seeds of certain genera of plants, especially those which belong to the great families of the *Compositæ* and *Valerianææ*. Familiar examples may be seen in the Thistle and the Dandelion. The term is also used to signify the down or mossiness of the under lip, the cheek, &c.

**PAPULA** (of the matter or nature of *Pappus*), is a pimple or small elevation of the cuticle, with an inflamed base, very seldom containing a fluid, or suppurating, and commonly terminating in scurf; it is

the *echthyma*, and *exormia* of the Greeks. According to Bateman there are three varieties of Papulous eruption:—1st, *Strophulus*, or Green Rash; 2nd, *Lichen*, Lichenous Rash; 3rd, *Prurigo*, Pruriginous Rash. See *Rash*, *Skin Diseases*.

**PARA**. Is a Greek preposition, admitting of various significations; it is a prefix to several medical terms, as will be seen by the following.

**PARACENTESIS** (Greek *kentio*, to perforate). The operation of tapping or making an opening into the abdomen, thorax, or bladder, for the purpose of discharging the fluid contained therein. See *Tapping*.

**PARACUSIS** is one of a class of terms in which the Greek preposition *par* always means a faultiness, or morbid state; the above signifying morbid hearing; while *Parapsis* is morbid touch; *Parabysma*, morbid congestion; *Paracyesis*, morbid pregnancy; *Parageusis*, morbid taste; *Paramenia*, Mis-menstruation; *Paraphonia*, altered voice; *Parodinia*, morbid labour; *Paroniria*, depraved dreaming; *Paropsis*, depraved vision; *Parosmis*, morbid smell; *Parostia*, Mis-ossification; *Paruria*, mis-micturation, &c.

**PARALYSIS** (Greek *lyo*, to relax). The total loss or diminution of motion, or sensation, or both, in any part; it is termed by Celsus *Resolutio nervorum*, and often called *Palsy* (which see). There are several kinds of Palsy or Paralysis, such as the *Paralysis agitans*; the Shaking, or as it is sometimes called, from the peculiarity of the patient's gait, the Dancing Palsy; *Hemiplegia*, when one side of the body only is smitten; and *Paraphlegia*, when it is the lower half which is more or less deprived of its nervous power; but in all cases it is the brain, which is the seat of disorder; and if this is confined to one of its hemispheres, the attack, if it does not include both sides, is most likely to fall on the opposite side of the body. The rupture of a vessel in the brain is one of the most common causes of Paralysis, and this may occur without there being any decided apoplectic symptoms; a slight transient faintness, and confusion of ideas, may precede the attack, or it may come on during sleep, so that the patient may only be made aware that he is paralysed by his inability to speak plainly, or to move a limb or one side of his body. Sometimes the attack is gradual, and occupies a considerable time—days, weeks, and even months elapse before the loss of nervous energy becomes complete; and this helplessness may be produced by a succession of slight shocks, as it

ere, or by the gradual stealing on of an apparently torpid condition; this latter is more commonly the case when the disease arises from a decided state of general debility, which in time involves the brain, until the structure gives way, and softening is the consequence. Literary men, and all who have much head work, are especially liable to that condition of the brain which causes Paralysis, and so are hard drinkers, and others whose lives or habits necessitate a frequent state of cerebral excitement; with such the progress of the disease is probably rapid; if of full habit, they will, it is likely, die quickly of apoplexy; if of spare, they will sink into a state of mental and bodily imbecility; in either case they may be subject to epileptic fits.

It is all nonsense to talk of a cure of Paralysis. Palliatives may be tried, and, in some cases, with a certain measure of success: there may be a partial restoration of power to the helpless leg or arm; the speech may become less thick, and the face less perceptibly drawn on one side; but we never yet saw a case of complete recovery, nor one in which there was not, sooner or later, a renewal of the attack. True, some paralysed persons live to a good old age, and are enabled to enjoy themselves, and perform the duties allotted to them; but seldom, if ever, do they become like unto their former selves; there is a little dragging of the foot in walking, the hand cannot grasp so tightly, nor the arm be lifted so quickly and readily in obedience to the will as formerly; there will, also, probably be a little hesitancy or thickness of speech, and the two sides of the face will not quite correspond.

In the above observations we have already hinted at some of the *causes* of this seizure, one of the chief being pressure upon or disease of the brain or spinal cord. When confined to the lower part of the body, there may be reason to believe that the defect of power is in some cases but functional: in this case the cause may be long exposure of the lower limbs to wet and cold, self abuse, excessive indulgence in venery, inflammation of the bowels or kidneys, effusion in the spinal cord from a blow, a burn, or other injury; disease of the womb, or of the urethra, may also give rise to it. Palsy of either of the limbs may be caused by pressure, and general Palsy by the action of lead, or mercury, upon the system; therefore those who work in these metals are peculiarly liable to be so affected, such as button-gilders, glass-silverers, plumbers, &c. (see *Painters' Colic*). The

most dangerous form of this kind is when it affects the muscles of respiration, in which case it rapidly proves fatal. Among the premonitory *symptoms* of Paralysis may be named head-ache, confusion of ideas, loss of memory, impaired vision, drowsiness, and partial stupor, with, frequently, numbness and pricking or tingling sensation in the limb or part about to be attacked. With persons of a full habit, there will be heat and flushings in the face, and most of the signs of an approaching fit of apoplexy; then follows indistinct articulation, loss of power, and the other marked and unmistakable indications of an actual attack.

The proper *treatment*, in the case of a patient of a full habit, will be bleeding and cupping in the neck, and strong purgatives, about 5 grains of Calomel, followed by Senna Mixture, or Croton Oil Pills every four hours, until they operate freely; when there is faintness and confusion of intellect, give a teaspoonful of Sal Volatile in a glass of water, and repeat it in an hour if required; no alcoholic stimulant must be administered; put the feet and legs in a hot mustard bath, and place the patient in a warm bed, with the head and shoulders well raised. Follow up the cupping in the neck with a blister, and after that, put in a seton, if required; after they have once acted well, keep the bowels gently open with Rhubarb or Castor Oil; let the diet be spare, and the quietude of the patient as perfect as possible. After the acute stage of the disease has passed, local stimulants should be used, and the affected parts well rubbed with the hand, or a flesh-brush. Electricity and Galvanism may also be employed, where there is no reason to suspect structural disorganization. In paraplegia it is often very difficult to get the bladder to act; and when it does, the urine flows from it involuntarily; great attention should be paid to this, and stimulant diuretics given; the Tincture of Cantharides, in  $\frac{1}{2}$  drachm doses, is, perhaps, the best.

In some cases, much relief has been afforded by the use of Sulphur Baths and Chalybeate Waters, such as those of Harrogate and Baden. Mercury, which is strongly recommended by some, is but a doubtful remedy. Strychnia has proved serviceable, but should only be given under medical superintendence. Repeated moxæ along the course of the spine, and small blisters on the insides of the legs and thighs, are recommended by Dr. Graves.

In Palsy of the face, if it is caused by a blow, a few leeches behind the ear, and at the angle of the jaw, may prove beneficial; if cold is the cause, hot fomentations and



stimulating liniments should be applied; as also in Palsy of the hands, fingers, or other extremities, with Electro-magnetism, persevered in for a considerable time. In all cases of chronic Paralysis, it should be borne in mind that the nervous system requires arousing and stimulating to a due performance of the functions necessary to life; in nearly all there is a sluggish action of the bowels, which are often obstinately constipated, and require the strongest purgatives to keep them at all open; it is sometimes better to employ enemata, than continue giving drastic medicines. The paralytic patient frequently enjoys pretty good general health, and eats largely, and this increases the above difficulty, especially if it be a heavy person, with little power of self-movement. When confined entirely to bed, sores and sloughing ulcers are not uncommon; these should be treated as directed under the head *Bed-sores*. An air or water bed greatly obviates the danger of them.

*Wasting Palsy* has been described as a kind of blight, which withers the muscles; it is said by Dr. Morgan to be a fatty and granular degeneration of the muscular fibres, which comes on in consequence of the exhaustion of inherent muscular irritability produced by over exertion of the particular muscles affected, or by cold. See *Atrophy*.

**PARAPHIMOSIS** (Greek *para*, and *phimo* to bridle). An affection of the prepuce, in which it is drawn quite behind the glans penis, and cannot be brought forward again. Good calls this *Strangulating Phimosis*. It is sometimes termed *Circumligatura*. See *Phimosis*.

**PARASITE** (Greek *para* near to, and *sitos* provisions). Literally this means, a hanger-on at the tables of the great; hence it is employed to designate animals found in the blood, intestines, &c., of man, or other living creatures, such as the hydatids of the brain, intestinal worms, &c. It is also the general name of plants which grow upon others, as moss, mistletoe, &c.

**PARAGORIC** (Greek *para*, and *goreyo* to mitigate). A medicine which relieves pain: this is a name formerly given to the "Compound Tincture of Camphor, which is still often called Paregoric Elixir. Of this preparation 1 ounce contains 2 grains of Opium; the Scotch Paregoric, called also Ammoniated Tincture of Opium, is twice as strong as this, and should be given carefully, especially to children. These preparations are employed beneficially in cases of cough, unaccompanied by inflammation, chronic asthma, and hooping-cough; the dose of the common sort is from  $\frac{1}{2}$  a drachm to 2

drachms; for children, from 5 to 10 minims in Barley Water, Linseed Tea, Almond Emulsion, or some other mucilaginous fluid may be given. See *Coughs*, *Opiates*.

**PARAIRA BRAVA**. The root of the *Cissampelos Pareira*, of the natural order *Menospemaceae*, it has a bitterish sweet taste,



and tonic, diuretic, and aperient properties; it is much valued by the Brazilians as a remedy for urinary obstructions.

**PARENCHYMA** (Greek *enkeho*, to pour out). A term now applied to the connecting medium of the substance of the liver, lungs, &c.; and in botany to the green juicy layer of bark which lies immediately under the epidermis of trees. The term was first employed by Erasistratus, under the impression that the common mass, or inner substance of a viscus, is produced by concremented blood, strained off through the pores of the blood-vessels, which enter into its general structure or membranes.

**PARIETALIA** (Latin *paries*, a wall). The name of the bones of the cranium, sometimes called the Parietal bones; they are so named because they serve as walls to the Brain (which see).

**PARILLINE**. The alkaline basis of *Sarsaparilla* (which see).

**PARISTHMITIS** (Greek *isthmos*, the fauces). This is the *paristhna* of Hippocrates; the *squiney* or *squinaney* of some later medical writers, and the *cynanche* or *angina* of the moderns.

**PARONCHIA** (Greek *onyx*, the nail). An abscess at the end of the finger, near the nail (see *Whitlow*). When the effusion presses on the periosteum, it assumes a malignant form, and is termed *Felon*.

**PAROTID** (Greek *otos*, the ear). The

ame of a gland situated near the ear. Its excretory ducts united form the duct of Steno. From the same root we have *Parotitis*, which is inflammation of the Parotid gland, being the *cynanche parotidæa* of Cullen; called in France, *oreillons* or *ourles*; in Scotland the *Branks*, and in England, the *Mumps* (which see).

**PAROXYSM** (Greek *oxys*, sharp). A periodic exacerbation, or fit of a disease.

**PARSNIPS.** The roots of the *Pastinaca Sativa*, belonging to the natural order *Umbelliferae*, are, when the plant is cultivated, thick, fleshy, sweet, and mucilaginous; they are a highly nutritious table vegetable, and have been made, in times of scarcity,



into an excellent bread: a wine is also prepared from them, resembling the Malmsey of Madeira and the Canaries. All domesticated animals feed and fatten on them; their composition has been found to be—79.4 of water, 6.9 of starch and fibre, 6.1 of gum, 5.5 of sugar, and 9.1 of albumen. In its wild state, the Parsnip root is not wholesome; it has been known to produce vertigo and delirium on those who ate it.

**PARTURITION** (Latin *parturio*, to bring forth). The act of bringing forth, or being delivered of a child. See *Labour*.

**PARULIS** (Greek *oylon*, the gums). An inflammation, boil, or abscess in the *Gums* (which see).

**PAR VAGUM** (Latin for wandering pair). A name given to the eighth pair of nerves, called the *Pncumo-Gastric*, being those which excite the lungs, the heart, the stomach, &c.; by some this is called the *Exciter of Respiration*.

**PASSION.** It is generally admitted by surgeons that the action of the heart is greatly influenced by violent mental emotions, and those who give way to strong Passions always run a great risk of laying the foundations of disease, in that important organ, if they do not at once suffer the punishment of their unbridled licence. Passionate persons are often themselves, either during a paroxysm, or immediately after it, sensible of feelings about the regions of the heart, which are neither natural nor healthful, and we have not unfrequently been consulted by such as have been greatly alarmed thereby. Instances of persons falling dead in a fit of Passion, with imprecations on their lips have been recorded; and many a blood-vessel has been ruptured in the mental tempest of uncontrolled passionate emotion.

**PASTA, or PATE.** The former word is Latin, and the latter French; they both signify a preparation made with mucilaginous and saccharine substances, a kind of lozenge, such as the *Pate de Jujube*. In this kind of confectionery, as in most others, the French excel; this word *Pate* also means paste, and hence we have *Pate Arsenicale*, Arsenical Paste. A preparation sometimes applied to cancerous ulcers. See *Arsenic*.

**PASTE, or PASTRY.** Every housewife knows how this ought to be made, therefore it is quite unnecessary for us to occupy our space with a description of the process. We have merely introduced the subject to warn our readers against it as an article of diet for those who have weak digestive powers, who do not lead a very active life, or who are at all inclined to be bilious. We scarcely expect, however, that our warning against the use of rich Pastry, will be of any avail; it is one of the nice things that people will eat and take the consequences, however much the Family Doctor may protest against the practice.

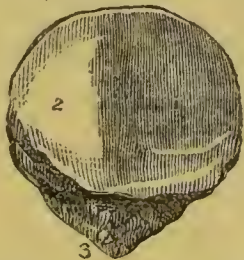
**PASTILLE** (Latin *pastilla*). A composition of sweet-smelling resins and aromatic substances, used for fumigating sick-rooms, &c.; they simply overpower, but do not render innocuous, unpleasant and unhealthful odours, and although commonly regarded as disinfectants, are by no means such. In most cases it is better perhaps to endure a bad odour than to hide it, unless its mischievous properties can be neutralized or destroyed; still it is sometimes desirable, if not necessary, to overpower an unpleasant scent with an agreeable one, and then Pastilles may be resorted to; they may be made in the following manner:—Take of



Gum Benzoin and Cascarilla Bark, each 1 ounce; Saltpetre, 6 drachms; Gum Myrrh,  $\frac{1}{2}$  a drachm; Charcoal,  $1\frac{1}{2}$  ounces; Oil of Nutmeg and Cloves, each 9 or 10 drops; the ingredients must be finely powdered, and well mixed together into a stiff paste with Mucilage of Gum Tragacanth; then made into small cone-shaped lumps, and dried: when required for use apply a light to the apex, and if properly prepared the cone will ignite, and burn gradually down to the base, diffusing an agreeable odour.

*Pastilles for Sweetening the Breath* are made thus:—Cinnamon and Orris Powder, of each 2 drachms; Soft Extract of Liquorice, 4 drachms; Oil of Cloves  $\frac{1}{2}$  a drachm; mix and make into 1 grain pills; let one dissolve in the month occasionally.

**PATELLA** (Latin diminutive of *patina*, a pan). Literally a little pan; applied to the knee-cap, or pan; it is a small bone of an irregular heart-shape, as here exhibited.



The right side of the Patella is here shown; 1, is the surface of the articulations with the external condyle of the femur; 2, the surface of articulation with the internal condyle; 3, the apex of the bone, the whole of which is contained within the tendon of the extensor muscles of the lower extremities. Fracture of the Patella is of no unfrequent occurrence; for cause and treatment (see *Fractures*; also *Knee*).

**PATHETICI** (Greek *pathos*, passion). A name given by Willis to the fourth pair of nerves, because the eyes by means of these give expression to certain passions.

**PATHOLOGY** (Greek, *pathos* disease, and *logos* an account). That branch of medical science which investigates and describes the nature of diseases; hence every professor of the healing art must be a *Pathologist*.

**PAULINA CONFECTIO** is a warm opiate, similar to the *Confectio Opii* of the Pharmacopœia.

**PAVILION**. A name given to the *alæ* constituting the greater part of the external Ear (which see).

**PEACH**. The *Amygdalis Persica* of botanists, is very nearly allied to the almond,

and, generally, included in the same family; its fruit when ripe, and eaten in moderation is not unwholesome. This plant, like all



of the almond tribe, yields hydrocyanic acid, which may be obtained from the kernels, blossoms, and young leaves. The Nectarine is but a smooth-skinned variety of the Peach.

**PEARLASH**. A common name for the impure carbonate of potash.

**PEARL BARLEY**. The decorticated seed of the common *Barley* (which see) and *Gruel*.

**PEARL EYE**. An old English name for *Cataract* (which see) and *Eye*.

**PEARL POWDER**. A preparation obtained from the nitric solution of bismuth, remarkable for its pearly lustre; it is sometimes used as a *Cosmetic* (which see).

**PEARL WHITE** is the name applied to the magistery or sub-nitrate of *Bismuth* (which see).

**PEAR**. This tree, called by botanists *Pyrus Communis*, and belonging to the natural order *Rosaceæ*, is a native of the woods of Britain, and other parts of Europe, where it grows wild, and from this have originated all the cultivated varieties known, most of which, if eaten ripe and fresh, are not unwholesome, but they are liable to very rapid decomposition, and, hence, are frequently taken in an unwholesome state, and cause disorders of the stomach and bowels; some of the harder varieties are well adapted for baking and preserving. Pear marmalade is an agreeable article of

et, and is not likely to disagree with those who take it occasionally and in moderation;



neither is Perry, which is the expressed and fermented juice of the Pear.

PEAS. These with beans, lentils, and other members of the *Leguminifera*, or pod bearing order of plants, are largely used as an article of diet. All the varieties of



garden peas which are cultivated have been derived from the *Pisum Sativa*, a native of the south of Europe.

The field Peas have been derived from

another species called the *Pisum Arvense*. When eaten young and in a fresh state, "Green Peas," as we call them, are wholesome and digestible, but, afterwards, the skin becomes tough and indigestible, and by lodging in the folds of the colon, or larger bowel, frequently occasions irritation and diarrhœa. When young, Peas contain a considerable proportion of saccharine matter, and when ripe and dry, like other leguminous plants, they contain much vegetable caseine analogous to the curd of milk; hence, the nutritive properties of Pea meal, which contains more plastic matter adapted for building up the animal tissues than that of wheat, oats, or any other kind of grain. The same may be said of the meal of beans and lentils, which last forms the staple of the Axta Mankaz, Revelenta, and other preparations advertised as food for invalids.

PEAS FOR ISSUES, as they are termed, are very commonly not Peas at all; the pips of unripe oranges are frequently used, and sometimes a composition of tow or flax with gum and wax, &c. See *Issues*.

PECTIC ACID (Greek *pektis*, a coagulum). A substance obtained from the carrot and other vegetables, and so named from its remarkable tendency to gelatinize.

PECTINEUS (Latin *pectin*, the pines). The name of a muscle which arises from the brim of the pelvis, whose office it is to bend and rotate the thigh. The Latin word *Pectin*, also means a comb, hence the term pectinated, toothed like a comb; the muscular fasciculi of the part are termed from their peculiar formation, *Pectinati Musculi*.

PECTORALIS (Latin *pectus*, the breast). The name of the muscles of the trunk, called *P. major* and *P. minor*, the first of which arises from the clavicle at the edge of the sternum, and the cartilages of the three lower ribs, and is inserted into the humerus; it is a muscle of respiration, and moves the arm forward, &c.; the second arises from the third, fourth, and fifth ribs, and is inserted into the scapula; it draws the shoulder bone forwards and downwards, and elevates the ribs. *Pectorals* is a name given to medicines which relieve disorders of the chest. *Pectiloquy*, a chest sound, or auscultation of the voice by means of the *Stethoscope* (which see).

PEDICULUS (Latin, diminutive of *pes*, a foot). Literally, a little foot; hence, in botany, the footstalk of a leaf or flower, is called a *peduncle*; but the application of the term which chiefly concerns our subject, is to certain species of troublesome parasites, among which are *P. humanis*, the common louse, chiefly infesting the head;



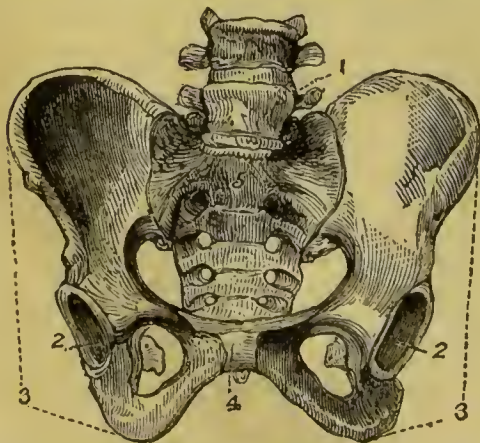
and *P. pubes*, the crab louse; both of these may be got rid of by means of an ointment of White Precipitate, and strict personal cleanliness. From the same Latin root *pes*, comes the term *Pediluvium*, or foot-bath (see *Bath*); and from *Pediculus*, or little louse, we have *Pediculatum*, an affection caused by the breeding of lice under the skin.

\* PELLAGRA (Latin, *pellis* the skin, and *agra* wild). An affection in which a morbid condition of the skin is a prominent symptom; it is very prevalent among the peasantry of the northern states of Italy, where it is called *Mal del Sole*, being ascribed to the action of the sun's rays; it is a form of *Elephantiasis* (which see).

The term *Pellicle*, which is a diminutive of *Pellus*, means a thin film or skin; among chemists it signifies a thin surface of crystals, uniformly spread over a saline liquid evaporated to a certain degree.

PELLITORY. The root of the *Anacyclus Pyrethrum*, of the natural order *Compositæ*, is much used, under the name of Pellitory of Spain, as a masticatory to relieve tooth-ache; is enters into the composition of certain snuffs, and by the Turks is rubbed into the skin to excite transpiration. It is a powerful irritant, and in certain forms of headache, rheumatic, and neuralgic affections, frequently affords relief; it is said in some instances to have cured obstinate cases of spontaneous salivation; it has also been used as a local stimulus in palsy of the tongue, or throat, and in relaxation of the uvula.

PELVIS (Greek for a basin). This is the lower part of the abdomen, containing the bladder and rectum, and in woman also the uterus. We give a cut of this important



part of the human frame, which, it will be seen, is an irregular structure of bone supporting the spine, marked by Fig. 1; this

rests upon the thigh-bones, whose rounded heads fit into the cups, or cavities, (2 2) of the pelvic bones; these hollows are known as the *acetabula*. We may remark that the Pelvis consists essentially of three distinct masses of bone; two of these are the *os innominata* (nameless bones), marked by the figure 3; they form together the sides and front of the pelvic cavity, being united in front, at fig. 4, by a triangular bone called the *os sacrum*, fig. 5, which fits like a wedge between the two side bones of the structure; on the top of this is placed the spine, whose central cavity encloses the spinal marrow, and is continued down the centre of the sacrum in which the holes marked 7 give entrance to small nerves. The side bones (3 3), although in the adult united each in one piece, are in childhood divided into three, and, for convenience of description, anatomists retain these distinctive divisions through life. Here we have a bony structure at once light, compact, and strong, admirably adapted to sustain the weight of the body, and to protect the important organs lodged within its cavity; in the female, this cavity is more broad and ample, and the bones are more extended, to afford sufficient room for the growth of the fetus, and for its safe delivery. It is manifestly of the highest importance that, in women the pelvic bone should be fully developed; in some cases from disease or other cause, it is not so, and the opening through which the child has to pass, and which is never more than barely large enough for the purpose, is so small as to render its extrication in a living state impossible. A female with a deformed, or imperfectly-developed Pelvis should never enter into the married state, for although she may conceive, she can never bring forth living offspring, and a every forced delivery her own life is put in imminent peril. Although the bones of the Pelvis are very strong, and firmly knitted together, yet they are sometimes fractured; this is at all times a very serious accident, for some of the important parts which they enclose are likely to be also injured, the bladder especially. When there is reason to apprehend its occurrence, surgical examination should be instituted as soon as possible, pending which, hot fomentations, poultices, and leeches may be necessary; the body should be placed in an easy position, and a broad flannel bandage sewn round over the hips. The bones of the Pelvis, in common with those of the rest of the body, are sometimes the seat of *Rheumatism* (which see).

**PEMPHIGUS** (Greek *pemphyx*, a bubble). A term applied by Sauvages to vesicular eruptions, described by some continental physicians under the terms *Febris vesicularis*, *Impullosa*, or *Bullosa*, the disease belonging to Bateman's order *Bullæ*. A form of this disease prevails among the children in many parts of Ireland, where it is called "white blisters," "burnt holes," and "eating lime."

**PENICELLUS** (Latin, diminutive of *peniculum* a brush). A term applied to a tent, pledget of lint or other substance, put to a discharging wound, or ulcer, to keep open; and also to the secreting extremities of the large trunk vein which extends along the groove of the liver, and is called the *vena porta*.

**PENIS**. The male organ of generation; consists of the corpus cavernosum, the urethra, the corpus spongiosum, which terminates in the glans penis; then there are the vessels, nerves, and a cutaneous investment, which by its prolongation forms the prepuce. See *Generation*.

**PENNIFORM** (Latin *penna*, a pen, and *forma*, likeness). Penshaped: a term applied to those muscles which have their fibres arranged on each side of the tendon like the webs of a quill, as is the case with the *rectus, femoris, &c.* The Half Penniform Muscles are those which have their fibres arranged on one side of the tendon only, as the *peroneus longus, &c.*

**PENNYROYAL**, or *Fleamint*, the *Mentha pulegium* of botanists, of the order *Labiata*,



has a high popular reputation as an emmenagogue, which, however, it scarcely deserves; the odour of its oil is pungent and peculiar, differing somewhat from the other Mints, which it resembles in its properties. See *Peppermint*.

**PEPPER**. Black, and White Pepper are both the fruit of the *Piper Nigrum*, the latter being the ripe berry deprived of its



skin by soaking it in water, rubbing it off, and then drying the berry in the sun; it is not so pungent as the black Pepper, nor so generally used; but at the tables of the wealthy it is generally preferred on account of its colour. The pepper plant belonging to the natural order *Piperaceæ*, is found in nearly all tropical countries, but chiefly in Java, Sumatra, Borneo, Malacca, and Hindostan. According to the analysis of Pelletier, Pepper contains *piperin*, a very acrid concrete oil, on which the properties of the seeds are supposed to depend; a balsamic gum; a gummy colouring matter; extractive matter, analogous to that of the leguminous plants; gallic and tannic acid; starch; basorin; lignin; and a small quantity of earthy and alkaline salts. *Piperin* is in the form of colourless, transparent crystals, and without taste; it has been recommended as a febrifuge; but really appears to have little or no action on the system. Pepper is well known as a warm, carminative stimulant, it strengthens the stomach, assists digestion, and gives tone to the stomach



when taken moderately, as it is with us; but in warm climates, where its immoderate use seems almost necessary to stimulate the digestive functions to a proper action, it is productive of mischievous results. Medicinally we use Pepper in this country chiefly as a remedy for dyspepsia and flatulence.

*Ward's Paste*, so celebrated for the cure of chronic piles, is chiefly composed of this spice, which has been given in gonorrhœa in the same manner as cubebs, as well as in intermittent fever, and applied in the form of ointment to ringworm; it is used, too, as a carminative adjunct to other medicines, and the stimulus of a Pepper plaister, has, like one of mustard, proved beneficial in the *doloureux* and other neuralgic pains.

*Long Pepper* (*Piper Longum*) is another member of the family, valued for its medicinal uses, which are much the same as those of the common kind. The Confection of Pepper is given in piles, and debilitated



and sluggish states of the system, in drachm doses; the Oil of Pepper from 1 to 3 drops; Tincture  $\frac{1}{2}$  a-drachm to a drachm. Other members of the Pepper family are noticed in this book. See *Cayenne*, *Cubebs*, *Matico*.

**PEPPERMINT.** A plant of the natural order *Labiata*, botanical name *Mentha Piperacea*, whose well-known peculiarly pungent oil is frequently used medicinally, having carminative and stimulant properties, which render it especially useful in dyspepsia, flatulence, and diarrhœa; the dose of this oil is from 1 to 3, or 4 drops. It may be taken in sugar, or diluted with a little spirit, and then mixed with water, and combined with other medicines. Peppermint water should, by rights, be distilled from the fresh plant, but it is most commonly made by rubbing down the oil with a little lump sugar and a few drops of spirits

of wine, or else with magnesia, and then filtering it; this is most commonly used as a vehicle for other medicines.



**PEPSINE** (Greek *pepto*, to ripen or digest). Under this name a kind of artificial gastric juice has recently been introduced into medical practice; it is prepared by digesting the cleansed stomachs of sheep, or pigs, in distilled water, treating the resulting liquid with acetate of lead, separating the precipitate thus formed by filtration, then suspending it in water, and passing sulphuretted hydrogen through the water to decompose the lead precipitate. The liquid, after being gently heated and filtered, is evaporated to dryness, and mixed with sufficient starch to form a powder, which is the above-named substance. The Prepared Liquor of Pepsine, *Liquor Pepticus Preparatus*, is sometimes a solution of this powder in distilled water, and sometimes the liquid obtained as above, before it is evaporated to dryness, and mixed with starch. Frequently a little alcohol is added to it for its preservation. The dose of Pepsine is about 1 scruple; of the Prepared Liquor a proportionate quantity. An agreeable means of administering Pepsine when the stomach will bear wine, is by infusing it 6 hours in Madeira Wine, and then filtering. Half an ounce of the Wine should contain a dose of the Pepsine, and is far more agreeable to take than the powder. Whether this substance really supplies a deficiency of the digestive power under which weakly and dyspeptic persons suffer, admits of some doubt although it has undoubtedly proved

beneficial in certain cases of impaired digestion. Dr. Neligan, in the last edition of his *Materia Medica* says:—"This substance, in my opinion, be regarded in no other light than as an artificial aid to digestion, applying the deficiency of gastric juice, which exists in some disordered states of the stomach, and therefore should be employed as a palliative only, and not as a medicine. Its properties indicate in what cases it is likely to prove useful; but, like other therapeutic agents, too highly vaunted at first, it is now falling much into disuse." From the Greek root *pepto*, we have also the term *Peptic*, applied to a substance which is digestible, and *Peptics*, medicines which promote digestion; also *Dyspepsia* (which see).

**PER.** Is a Latin particle often used in chemistry; it denotes that the substance to which it is applied is in excess of its base of combination; thus a *peroxide* is a compound containing an unusual, or thorough quantity of oxygen; that is, a maximum, as distinguished from a *protoxide*, which has oxygen only in the least degree: the particle *sub* is also sometimes used to signify the minimum degree. *Peracute*, very sharp, is a term applied to diseases when greatly aggravated, or attended inflammation.

**PERCUSSION** (Latin *percussio*, to strike). The act of striking upon the chest, abdomen, &c., with a view of producing sounds by which the state of the subjacent parts may be ascertained. This is distinguished as—1st. *Direct Percussion*, which consists in striking the surface of the chest, &c., with one, two, or three fingers, and observing the degree and quality of the sounds produced: 2nd. *Mediate Percussion*, which differs from the former, chiefly in the employment of a small plate of ivory, or a piece of caoutchouc, or a finger laid flat upon the surface, on which the percussion is made.

Under the head of *Auscultation*, we have already made some remarks upon this subject, which will enable our readers to understand the general principles of the art. It would answer no good purpose to go more fully into the matter, in a work like this, intended for popular use; as only those well acquainted with anatomy and pathology could successfully conduct an inquiry into the nature and progress of disease by the means indicated. See *Stethoscope*.

**PERFORATION** (Latin *perforo*, to pierce). A term generally employed to denote a solution of continuity, or separation of parts; it generally occurs from disease of the hollow organs, as the intestines. *Sponta-*

*neous Perforation* is that which occurs without having been preceded by any perceptible modification of functions, either local or general.

**PERICARDIUM** (Greek *peri*, around, and *karäia*, the heart). The membrane which surrounds the heart. When it is the seat of inflammation, we term it *Pericarditis*. For symptoms and treatment of this disease, see *Heart*, &c.

**PERICHONDRIUM** (Greek *peri*, and *chondros*, cartilage). The sinovial membrane which covers cartilage.

**PERICRANIUM** (Greek *kranion*, the skull). The membrane which covers the bones of the skull, or cranium; in other bones, the corresponding membrane is termed the *Periosteum*. See *Bones*, *Skull*.

**PERINEUM** (Greek *naio*, to flow). The space between the anus and the external parts of the generative organs, so called from being frequently moist. The operation of cutting for stone in males is usually performed here, and here it is, that serious injury sometimes occurs, when persons fall with their legs astride of any object, or get a bruise while in that position, as on horseback; bloody urine, or complete stoppage may be the consequence, arising from inflammation of the bladder, or urethra. Rest and warm fomentations, with leeches, and the use of the catheter, if necessary, must in this case be resorted to; with low diet, aperients, and cooling medicines, to keep down any tendency to fever there may be.

**PERIOD.** This term is usually applied to the regular intervals between the paroxysms of intermittent fever, and also to certain structural and functional changes, which, as it were, divide animal life into successive stages of development and decay. To the human physiologist, the subject of Periodicity is one full of interest; its more obvious manifestations, such as the regular return of the paroxysms in the quotidian, tertian, and quartan ague; the certain calculable periods that may be assigned to the appearance and decline of the eruptions of measles, scarlet fever, and small pox; and the hectic of the consumptive patient, which is heightened, as are most febrile symptoms, at the close of day; all these are sufficiently obvious to every observer, but there are other signs of the operation of the laws of Periodicity, which are not so obvious as are these, and certain functional changes which occur at particular periods of life, and which well merit minute investigation. A close observance of such phenomena, in conjunction with those of the atmosphere, might probably establish the fact that there is an



intimate connection between the two classes of phenomena, at least as far as relates to those which characterize some of the diseases which affect mankind. This is, however, a subject which would require a wider scope for its full elucidation than we could give it here; even were there sufficient data on which to found a decided opinion. Influenza and other epidemic diseases are no doubt greatly influenced by barometrical variations, and it seems likely that both the electricity of the air, and the magnetism of the earth, have a decided influence on vital phenomena; those of intermittent fever were especially ascribed by Dr. Huxham to the varying pressure of the atmosphere on the veins; and, more recently, Sir D. Barry, took up both his pathological and physiological views.

**PERIORBITA** (Latin *orbita*, the cavity of the eye). The fibrous membrane which lines the orbit. See *Eye*.

**PERIPNEUMONIA** (Greek *pneumon*, the lungs). Inflammation of the parenchyma of the *Lungs* (which see), and *Pneumonia*. A form of bronchitis, termed by Dr. Badham, asthenic, is sometimes called *Peripneumonia notha*.

**PERISTALTIC** (Greek *stello*, to contract). A term applied to the vermicular motion of the intestines. *Peristaltic Persuaders* is a name which Dr. Kitchener gave to his celebrated Dinner Pills: consisting of Rhubarb 2 drachms, Oil of Carraway 10 drops, Syrup 1 drachm, divided into 3 grain pills.

**PERISTROMA** (Greek *stromno*, to spread). Literally, a covering; applied to the mucous or villous coat of the intestines, called by some *Mucosum villosum*; by others, [*Crusta membranosa*, or *C. vermicularis*].

**PERITONÆUM** (Greek *teino*, to extend). The serous membrane which lines the interior of the abdomen, and invests all the viscera contained therein. This is what anatomists would call a closed sac; it contains simply a serous fluid which it secretes, and by which its various duties, and those of the parts invested by it, are facilitated: these parts all lie exterior to its cavity, the outer sides of the membranous sac being folded over them. When there is dropsy of the belly, the water is effused into this cavity: wounds by which the membrane is pierced or divided, are extremely dangerous on account of its liability to inflammation, which, when it takes place here, is termed *Peritonitis*. Puerperal, or Child-bed fever, which sometimes takes place after labour, is called *Peritonæal Fever*, because this membrane is the chief seat of inflammatory

action. See those heads for further information.

**PERIZOMA** (Greek *peri*, and *zonnymi*, girdle or truss). This term has been applied to the *Diaphragm* (which see).

**PERLATE ACID**. The name given by Bergman to the acidulous phosphate of soda the common phosphate had been previously named *Sal mirabile perlatum*.

**PERNIO** (Greek *perna*, the heel). A term applied to a chilblain, especially if on the heel; it may be either *P. simplex*, in which the cuticle remains unbroken, or *P. exulceratus*, in which there is a broken skin and ulceration. See *Chilblains*.

**PERONÆUS** (Greek *perone*, fibula). The name of three muscles of the leg, viz., the *P. longus*, and the *P. brevis*, both arising from the fibula, and serving as extensors of the leg; and *P. tertius*, which arises from the lower half of the fibula, and is inserted into the metatarsal bone of the little toe; this is the flexor of the leg. The term *Perone* is applied to the fibula, or small bone of the leg, because it is thought to resemble the pin of a brooch. See *Leg*.

**PERRY**. A fermented liquor made from pears in the same way as cider is from apples; the most hard, austere, and unpalatable kinds are used for this purpose; the beverage, when particular care is bestowed on the manufacture, is not inferior to some foreign wines; it is a pleasant, and by no means an unwholesome drink. See *Pear*.

**PERSICUS IGNIS** (Latin for Persian Fire). A term applied by Avicenna to that species of carbuncle, which is attended with pustules and vesication. See *Carbuncle*.

**PERSISTENS FEBRIS** (Latin for a Lasting Fever). A regular intermittent; the paroxysms of which return at stated times. See *Fever*.

**PERSPIRATION** (Latin *perspiro*, to breathe through). This is the watery vapour which is constantly passing off through the pores of the skin; when not, as is commonly the case, in such quantity as to be noticed, it is termed *insensible*; when so profuse as to collect in drops on the surface, it is *sensible Perspiration*, or *Sweat* (which see). The fluid which thus passes off from the system consists chiefly of water, with a small proportion of muriate of soda and free acetic acid; the quantity is at all times very considerable, but is greatly increased during violent exercise, or in hot weather. We give here a cut of one of the glands by which the Perspiration is secreted; it represents a vertical section of the sole of the foot: *a* is the cuticle or scarf-skin, the deeper layers of which, dark in colour, being called the

rete mucosum; *b* marks the position of the *papilla*, *c* the *cutis*, or true skin; and *d* is the sweat gland in a cavity of oily globules. This gland is seen to possess a twisted duct which passes upwards to the surface, and through this tube ascends to the surface the Perspiration, sensible and insensible. It is calculated that there are no less than 28 miles of this tubing on the surface of the human body, and that, on an average, from 2 to 3 pounds of water daily reach the surface through these channels, and is evaporated. For further particulars on this head, see *Skin*.

**PERTUSSIS.** The name first given by Sydenham to *Hooping Cough* (which see).

**PES** (Latin for a foot).

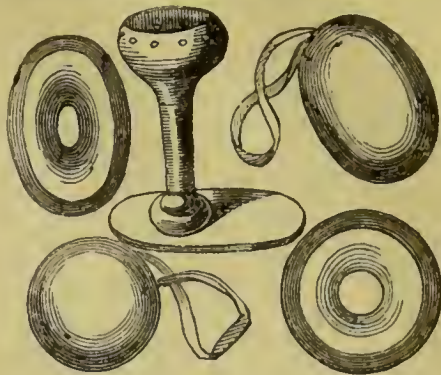
Hence we trace the terms *Pes anserinus*, the Goose's foot, the name of a plexus of nerves situated on the side of the face; and *Pes hippocampi*, the Seahorse's foot, sometimes called the *Cornu Ammonis*, a part of the brain situated at the posterior prolongation of the fornix. See *Brain*.

**PESSARY** (Greek *pesso*, to soften). An instrument made of wood, or other material, formerly employed to keep medicinal substances applied within the pubenda; but now used for preventing prolapsus of the uterus or vagina, or for keeping up a particular kind of rupture.

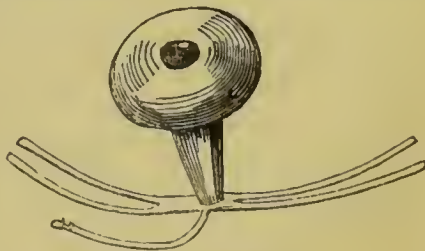
Pessaries are of various forms, in accordance with which they are distinguished as the Bung-shaped, the Conical, the Cup-and-Ball, and the Ring-shaped, &c.; the first is usually employed in vaginal hernia, the second and third in prolapsus uteri, more or less complete, and the fourth in slighter cases of the same. We give representations of the forms generally used; most commonly they are of boxwood, but sometimes, especially the ring-shaped, of a composition of India-rubber called elastic gum.

Sometimes the solid ones are made perfectly spherical, and sometimes the flat

rings are oval in shape; there is also another form called the Mushroom Pessary,



shaped like a cup rising from a stem. A modification of this has been recently introduced by M. Bourgeaud, which appears calculated to support the prolapsed uterus, without creating any irritation of the cervix or vagina, and to allow of the escape of fluids, which the old solid Pessaries would frequently not do. The following cut will give our readers an idea of this instrument,



which is made of Indian-rubber, and distended by inflation, after its introduction into the vagina, to any required extent. Both the channel and stalk of this instrument present a cylindrical canal, which is intended to prevent any accumulation of the normal or abnormal discharges; it is secured on the patient by elastic bands, which are easily fastened to a light narrow belt, running round the lower part of the abdomen; being so elastic and yielding in its nature, it adapts itself better to the shape of the cavity into which it is introduced, and affords the necessary support without undue pressure. A light inflatable ball of India-rubber, with a string instead of a stalk, is also sometimes used; and an instrument of this kind composed of cotton wool has lately engaged the attention of the profession; it is said to be softer, less irritating, and far more cleanly, than the sponge or caoutchouc Pessary, and readily absorbs astringent and other solutions; it is enclosed



in a pyriform net, which is closed by a stout silk thread, which hangs through the vagina, and allows of a ready withdrawal of the Pessary.

**PEST, or PESTILENCE** (Latin *pestis*, a plague). A term often applied to that destructive form of epidemic disease which in times past committed such fearful ravages in this country and other parts of Europe, and the East, where it is still occasionally prevalent. See *Plague*.

**PETECHIA** (Italian *petechio*, a flea-bite). A speck or spot on the skin, which resembles that caused by the bite of a flea. Various authors have applied this term to Land, or, as it is sometimes called, Petechial Scurvy, a form of purpura, scientifically termed *Petechiæ sine febre*, or *Hæmorrhæa petechialis*. See *Scurvy*.

**PETROLEUM** (Greek *petros*, a rock, and *elaion*, oil). A bituminous fluid, which flows out of the fissures of rocks; it is commonly called *Barbadoes Tar*. From the same root we have the name applied to the rough portion of the temporal bone, *Petrosum os*.

**PEYER'S GLANDS**. The clustered glands of the intestines, or agminatæ, so called from their discoverer, Peyer.

**PHACIA** (Greek *phakia*, a lentil seed. This is the ancient term for lentigo, or *Freckles* (which see).

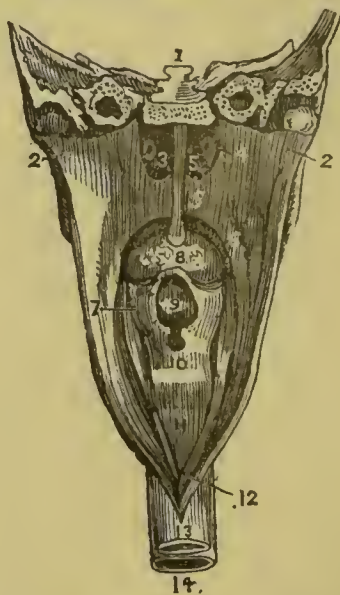
**PHAGEDENA** (Greek *phago*, to eat). An ulcer which spreads, and, as it were, eats away the flesh: hence the general term *phagedænic*, applied by surgeons not only to destructive ulceration, but also to medicines or applications which cause the absorption or sloughing of fungous growths. *Phagedænic Water* is made from Quick Lime and Corrosive Sublimate, and is therefore a compound of Chloride of Calcium and Red Oxide of Mercury; it is sometimes applied to foul ulcers and fungous tumours.

**PHALANX** (Greek for an army.) Applied to the bones of the fingers and toes, on account of their regularity of form and arrangement; the plural is *Phalanges*.

**PHARMACOPŒIA** (Greek *pharmakon*, a poison, or a medicine, and *poieo*, to make). Originally applied to the process of making or preparing medicines: now used to denote the dispensatory, or standard code in which the various medical preparations are described, and their doses specified. The colleges of London, Edinburgh, and Dublin have each a distinct Pharmacopœia, differing considerably in many of the formula. Hence it is usual, in prescribing, to affix E or D, after the tincture or other preparation, should the prescriber intend it to be

different from the London form. We speak of these authorized forms of medicine as *Pharmaceutical preparations*, and of that branch of medicine which consists in compounding as *Pharmaceutics*; while *Pharmacology* is a description of the method of compounding, and administering medicines. He therefore is a *Pharmacologist* who is skilled in, or writes on, drugs and medical compounds; and *Pharmacy*, in its most extensive sense, is the art or practice of collecting, preparing, preserving, compounding, and combining medicines, and dispensing them according to the formula or prescriptions of medical practitioners; or, in a more narrow sense, it may signify merely the compounding and mixing of drugs according to prescriptions, or as we commonly say, *Dispensing*.

**PHARYNX** (Greek for the throat, from *phagein*, to convey). The muscular, funnel-shaped bag, situated at the back part of the mouth, which receives the masticated food, and conveys it to the œsophagus, in which it terminates. The following cut, from Wilson, will give our readers some idea of its structure and position.



We here see the Pharynx laid open from behind; fig. 1 commencing the section which is carried transversely through the base of the scull; 2 2' are the walls of the Pharynx drawn aside; 3 3' are the posterior nares separated by the vomer (see *Nose*); 4 is the extremity of one of the eustachian tubes; 5 is the soft palate, of which 6 is the posterior pillar, 7 being the anterior pillar; in the niche between the two is seen the tonsil; 8

is the root of the tongue, partly concealed by the uvula; 9 is the epiglottis which overhangs (10) the cordiform opening of the larynx, of which 11 is the posterior part; 12 is the opening of the œsophagus, the continuation of which is marked by 13, while 14 indicates the position of the *Trachea* (which see).

Thus we see that the Pharynx and Œsophagus, which form the continuous tube, or canal, by which food is conveyed into the stomach, are directly behind the larynx and trachea; these latter being the passages by which air is conveyed to and from the lungs, and by means of which vocal sounds are uttered. *Pharyngitis* is inflammation of the Pharynx; *Pharyngotomy* is the operation of cutting into the Pharynx for the purpose of extracting any foreign body; and *Pharyngotomus* is the instrument by which this is accomplished.

**PHIMOSIS** (Greek *phimos* a muzzle). An affection of the prepuce which prevents its being drawn back so as to uncover the glans penis. See *Paraphimosis*.

**PHLEBITIS** (Greek *phlebs* a vein). Inflammation of the veins; it is distinguished by a hard, cord-like, tender line, pursuing the course of a vein or veins, commencing generally at a bruise, cut, or some other injury; it may be suppurative and diffused, running into abscesses, and attended with typhoid fever; or suppurative and adhesive, with distinct abscess in the course of the inflamed vein, and protracted fever. From the same root *phleps*, or *phlebs* with *tome* section, comes *Phlebotomy*, that is *Venesection*, or opening a vein. See *Bleeding*.

**PHLEBOLITES**. Among the great number of cases of enlarged and tortuous veins it is not unusual to meet with Phlebolites, or Vein Stones, as they are often called; they are large, and generally oval substances, which are found in the tortuosities of the veins, and are composed principally of phosphate and carbonate of lime, with some animal matter. Sometimes they cause great inconvenience, and have to be removed. Their usual situation is on the saphenous vein, which is the most prominent of any in the leg, and are always connected with varicose enlargement; the smaller vessels in various parts of the body, however, when diseased, generally contain them.

**PHLEGM** (Greek *phlegma* from *phlego* to burn). This word originally meant matter which resulted from suppuration or destruction of animal tissue; according to the ancients, it was one of the four humours of which the blood was supposed to be composed. We now understand it to mean

bronchial *Mucus* (which see), or the thick viscid matter secreted in the throat, and discharged by coughing; chemists sometimes apply it to the water of distillation, and physiologists to temper or temperament, thus a dull, cold, sluggish, indifferent, person is said to be *phlegmatic* or *phlegmatical*, or to act *phlegmatically*, that is coldly, heavily.

**PHLEGMAGOGUES** was the ancient name of purgatives which produced glairy evacuations, from excitement of the mucous membrane, and *Phlegmorrhagia* was profuse secretion of mucus.

*Phlegmon* is the term often applied to healthy inflammation; and *Phlegmonous* is a term generally used in connection with erysipelas, which affects the cellular tissue beneath the skin.

**PHLEGMASIA** (from the Greek *phlegma*) is a term applied by Cullen and others to local inflammations; thus we have *Phlegmasia dolens*, Puerperal tumid leg, an affection depending upon inflammation of the iliac and femoral veins. Dr. Cullen termed this *anasarea serosa*, and Dr. Lee *erural phlebitis*.

**PHLOGISTON**. (Greek *phlogo*, to burn). A name given by Stahl to an imaginary substance which was supposed to be the principle of inflammability. The theory was, that combustible bodies consisted of an incombustible base united to this Phlogiston, which escaped in the act of burning. We now attribute the process to the union of certain known substances, of which oxygen is the chief; and we call these supporters of combustion Phlogosis (to inflame), the term applied to an inflammation or flushing. To local inflammation Dr. Good applied the term *phlogotica*.

**PHLORIDZINE**. A substance discovered by Dr Kormiek in the fresh bark of the root of the apple, pear, cherry, and plum tree; it appears to be very similar to *Salicine*, is acted on by dilute acids, exactly like that substance, and like it has been used with success in intermittents.

**PHLYCTENA** (Greek *phlyktaina*, a vessel; from *phlyko*, to be full or hot) a vesicle containing ichorous fluid. The diminutive of the term Phlyctena, *phlyctenula*, is applied to a watery vesicle of the ciliary margin. See *Eyelids*. From *phlyko* comes also *Phlysis*, a term formerly used to denote a cutaneous eruption filled with any kind of fluid, generally ichorous or vesicular pimples; but this term is seldom now used; nor is *phlyzacium*, a pustule, commonly of a large size, raised on a hard circular base, of a vivid red colour, and succeeded by a



thick, hard, dark-coloured scab. See *Skin Disease*.

**PHOCENINE.** A peculiar fatty matter obtained from the *Delphinium phocaena*, or Porpoise; it yields, on saponification, a volatile odoriferous acid, called Phocenic acid.

**PHOSGENE GAS.** (Greek *phos* light, and *gennao*, to produce). A compound of chlorine and protoxide of charcoal, sometimes called Chloro-carbonous acid.

**PHOSPHATE.** (Latin *phosphas*). A salt formed by the union of phosphoric acid with an earthy or mineral base; thus we have Phosphates of barytes, lime, potash, soda, &c. Many of the metallic oxides which are met with in nature, are properly Phosphates. The Phosphate of lime, which is the base of the bones of all animals, is sometimes used medicinally, and is alluded to in all medical works under the name of *cornu ustum*, burnt bones. The old tasteless Purging Salts, prepared from bones and carbonate of soda, is properly Phosphate of soda; it exists in the urine combined with ammonia, and in this combination has been called fusible or microcosmic salt.

**PHOSPHORUS** (Greek *phos*, and *phero* to bring). It is a substance which was originally prepared from urine, but is now made from bones. It is highly inflammable and luminous, burning, when exposed to a common temperature with a slow combustion, and diffusing a very peculiar lustre, which has been called *Phosphorescence*. It is present, to a greater or less extent, in all decayed animal, and in most vegetable and mineral matter, which hence becomes luminous; and it is the phosphorescent light which is emitted from the minute jelly-fish and animaleculæ of the deep, making the ocean waves flash and shimmer like living flame. The chief present economic use of Phosphorus is in the manufacture of lucifer matches, and its consumption for this purpose must be enormous; it is a strong poison, being of all stimulants the most powerful and diffusible; if given, as it sometimes is, to rouse the vital powers in typhoid fever, the latter stages of phthisis, or exhaustion from any chronic disease, it should be with great caution, and never in substance by itself on account of its corrosive nature. The dose is from 1-10th to 1-20th of a grain dissolved in Ether, with a drop of some aromatic oil. It has been recommended for gout and rheumatism, and is employed externally as the chief stimulating ingredient in liniments, for paralyzed limbs, and other parts. For this purpose it should be dissolved in Olive Oil, in the proportion of 20 grains to 8 ounces, with 20

grains of Camphor, and 1 drachm of the strong Liquor of Ammonia. Dr. Copeland recommends it to be taken in paralysis, in combination with Oil of Amber, dissolving 1 grain in 1 ounce of the oil, and taking 10 drops three times a-day in cold water. The constant inhalation of Phosphoric vapour by those employed in lucifer-match factories is found to have a very injurious effect upon the health, frequently giving rise to a peculiar form of disease whose seat is chiefly on the lower jaw, portions of which become necrosed, or dead, causing abscesses and ulcerations. Sometimes the diseased portions of bone have to be removed by the surgeon, and cases have occurred in which nearly the whole of the jaw has been lost. It has been stated that if saucers filled with Turpentine are distributed about the workrooms, they will, by absorbing the Phosphoric vapours, to a great extent obviate this danger; but cleanliness and free ventilation are the best safeguards. Recently it has been found that if ordinary Phosphorus is melted in a peculiarly constructed retort, and kept for some hours at a temperature of about 500 deg. Fahr. it becomes, as it were, latent, so that it ceases to give out any vapour, and is so incombustible that it may be handled and even swallowed with impunity. This, which is termed Amorphous Phosphorus, is likely to come into general use; so that if children take a fancy for sucking lucifer matches, they may do so without being poisoned, and people may work in the factories without losing their lower jaws; or if they be pregnant women, of miscarrying, as it has been ascertained by a scientific Frenchman they are very likely to do under the influence of Phosphoric emanations, which the same authority asserts are great excitants of the sexual organs in men.

The ground bones and other phosphates which cultivators find so beneficial to their lands serve but to supply the waste of Phosphorus occasioned by the growth of plants, and especially the greens used chiefly by man as food. A compensation for this waste might be found in the sewage of our large towns and cities, which contains Phosphorus in abundance; if this were properly preserved and distributed there would be no need for guano and other foreign manures.

There are several chemical combinations into which this substance enters, such as *Phosphalic Acid*, an acid obtained by the slow combustion of cylinders of Phosphorus in the air; *Phosphoric Acid*, a compound of Phosphorus and oxygen; *Phosphurets*, which are compounds of Phosphorus with

combustible or metallic oxides; and *Phosphates*, which are salts of the Phosphoric acid. There are some preparations to which the term is wrongly applied, such as the Phosphorus of Baldwin, of Canton, and of Bologna, the first being the Ignited Muriate of Lime; the second, Oyster-shells calcined with Sulphur; and the third the Sulphate of Barytes.

**PHOTOMETER** (Greek *phos*, and *metron*, a measure). An instrument for measuring the different intensities of light. The most simple and generally approved is that invented by Sir John Leslie, being merely his differential thermometer, having one of the balls diaphanous, and the other coated with China ink or dark enamel. The light passes through the clear ball, but is absorbed, or rather the heat is, by the black one; this heat causes the air in the ball to expand, so that it forces down the liquid on the stem attached to it, and the space which this sinks measures the intensity of the *Light* (which see).

From the same Greek root *phos*, we have also *Photophobia*, Intolerance of light, a symptom of amaurosis; and *Photopsia*, Luminous vision, which is sometimes called *Visus Lucidus*. This is also a symptom of *Amaurosis* (which see).

**PHRENITIS** (Greek *phrenes*, from *phren*, the mind). A term formerly applied to the diaphragm, because it was supposed to be the seat of the soul. From the same root comes also *Phrenzy*, a disorder of the brain. See *Madness*.

**PHRENOLOGY** (Greek *phrenos*, and *logos*, an account). Literally a description of the mind; applied by Gall and Spurzheim to a new doctrine of mental philosophy, founded on a presumed knowledge of the functions of different portions of the brain, which, by their peculiar developments, modified the form of the head, so as to make it an indication of character. According to this theory, the head may be regularly mapped out, and the mental peculiarities of the individual at once determined by a comparison of its different parts. Dr. Combe, who followed Spurzheim, and is considered in this country the most eminent authority on the subject, divides our faculties into three classes—The intellectual or perceptive; the sentiments and emotions; and the animal propensities. The front part of the head is assigned to the first of these; the middle and upper parts to the second; and the hinder part, including the cerebellum, to the third. Each of these divisions is subdivided into minute parts, which are supposed to cover special organs assigned to distinct faculties or feelings.

Much stress has been laid upon the advantages to be derived from Phrenology as a basis for a system of medical psychology. If, as has been asserted, we can ascertain by certain cranial developments, the faculties and feelings, and can, by a proper course of treatment, repress the growth of such as are of a bad tendency, and encourage that of those of an opposite nature, we shall be able to do much towards producing a perfect character; and, as a sound mind will go far to produce a sound body, we shall thus also greatly conduce to a good state of physical health. But we do not find that this beautiful theory (for such it certainly is) can be brought into practice, without disappointing the expectations of those who have built upon it hopes of ameliorating the condition of their fellow creatures. Hence its utility, at all events, in the present state of the science, if we may so call it, is very questionable, either as a guide for educating the healthy mind, or for remedying its diseased condition.

**PHRYGANEAE GRANDIS**. The scientific name of the Caddis Fly, the larvæ of which are said to have been found in the human intestines.

**PTHISIS** (Greek *phthio* to consume, or corrupt). A disease, produced by tubercles on the lungs, called *Consumption* (which see). The Greek pathologists generally treated this disease under two heads *Phthisis* and *Phthoe*, the former being abscess, and the latter, ulceration of the Lungs. *Phthisic* is a term sometimes improperly applied to any difficulty of breathing, more especially to chronic dyspnoea under the mistaken impression that it is the result of Phthisis; so also we sometimes hear *Phthisical* applied to a wasting of the flesh.

**PHYMA** (Greek from *phio*, to produce). An imperfectly suppurating tumour forming an abscess, often with a core in the centre; this is the name of a genus of the *tubercula* of Bateman which includes boils, carbuncles, &c.

**PHYSCONIA** (Greek *physao* to inflate). Inflation of the bowels; called by Hippocrates *Megalo-splanchnus*, or big bowel: for this and visceral turgescence generally, Dr. Good uses the term *Parabysma*; it is usually occasioned by a morbid state of the liver or spleen.

**PHYSETER MACROCEPHALUS** (Greek *makros* great, and *kephale* head). The scientific name of the spermæcti whale, characterized by its enormous head, from which is obtained *Spermæcti* (which see).

**PHYSIC**. This term is generally applied, 1st, to to the art of healing diseases, or, as



we now say, the science of *Medicine* (which see); 2nd to medicines, or remedies for diseases; 3rd, in popular language, to a medicine that purges, a *Cathartic* (which see). Thus *Physic* in the active sense is, to treat with medicine, to cure, or to purge. *Physianthropy* is the doctrine of the constitutions and diseases of man; and may be termed the Philosophy of Human Life.

**PHYSICS** (Greek *physis*, nature). This is the science of nature, or of natural subjects, comprehending in its widest sense the study or knowledge of whatever exists in the material world; in its more restricted sense it is applied to one of the three divisions of natural science, these three being—*Physics*, or natural philosophy, which has relation to the general properties of bodies, their mutual actions on each other, their causes, effects, laws, &c.; *Chemistry*, which studies the peculiar properties of bodies, their elementary principles and combinations; *Natural History*, which observes their external characters and appearances, classifies and arranges them.

**PHYSICIAN** is one who professes the art of healing; he belongs to the first class of medical practitioners in social rank and legal position; he puts M. D. after his name, and calls himself a Doctor of Medicine, the first term signifying learned from the Latin *doctus*, and the last coming from *medico* to cure. If he has not taken out his degree at one of the Scotch, Irish, or other universities, he is a member of the London Royal College of Physicians, whose foundation dates from 1518, letters patent, therefore having been obtained from Henry VIII, through the instrumentality of Cardinal Wolsey. The examining board of this college grants diplomas to those, who, according to their regulations, are legally qualified to practice as Physicians, who confine themselves generally to the prescribing of medicines, which are prepared by the apothecary, or druggist, the prescriber having a certain fee for his attendance. In difficult and dangerous cases the Physician is frequently called in to consult with the family surgeon. *Doctor* is a name very commonly applied to all medical practitioners, and many of those who practice as surgeons and apothecaries are really entitled to it, having obtained diplomas from some college or university.

**PHYSIOGNOMY** (Greek *physis* and *ginosko* to judge of). The study of general character, or of diseased states from the features and cast of the countenance. Efforts have been made by Lavater and others to raise this study to the rank of a science, but with-

out success; undoubtedly the countenance will, to a certain extent, indicate character, as the general shape of the head will afford some confirmation of the theory of phrenology; but there are so many modifying influences, that it is never safe to predicate by any of these outward and visible signs what the mental or moral man may be. Of his state of health we may commonly judge pretty well by the condition and expression of the *Countenance* (which see) and *Face*.

**PHYSIOLOGY** means that branch of medical science which treats of the functions of the human body, as *anatomy* treats of its structure. Thus, a *Physiologist* is one who has to do with the science of things generated or alive—with the doctrine of vital phenomena; he may study animal or vegetable Physiology, but it is with the former that the medical man is most concerned, and especially in its relation to the internal economy of man, that is, *Human Physiology*.

**PHYSOMETRA** (Greek *physao*, to inflate, and *metra*, the uterus). An inflated condition of the *Uterus* (which see).

**PIA MATER** (Latin for Pious Mother). The innermost membrane of the *Brain* (which see).

**PIAN** (a Raspberry). The name given on the American coast to *Yaws* (which see), and *Frambæsia*.

**PICA** (Latin for a Magpie). Sometimes applied to depraved appetite, or a craving for improper substances. See *Malacia*.

**PICKLES**. Vegetable substances prepared in vinegar are universally taken as a relish with cold meats. Nothing can be said against the practice, provided the Pickles are properly prepared, and but a small quantity be eaten at the time; they are somewhat indigestible, it is true, yet not so much so as to cause inconvenience or mischief. Unfortunately, as the investigations of the *Lancet Sanitary Commission* have shown, the Pickles prepared in a large way for shop sale, have commonly more or less of copper in them, and this is especially the case with the green kinds, such as gherkins, beans, &c. This adulteration may be easily detected thus:—Take a perfectly clean and bright piece of Iron, immerse it for several hours in the vinegar of the Pickle; if copper be present, a dim crust of it will be deposited on the iron. Or it may be done in this way:—On the blade of a Knife made perfectly clean put 3 or 4 drops of the vinegar, and 1 drop of Sulphuric Acid, then hold the under surface of the knife over the flame of a candle, until the liquid is evaporated; the copper, if there be any, will

be deposited on the iron. From the above authorities, we learn also that the vinegar of Pickles is adulterated with sulphuric acid (for the mode of detecting which adulteration see *Vinegar*.)

On the whole, it is best for Pickles to be home-made; every housewife will know the process, or can easily learn it by consulting *The Wife's Book of Cookery*, or some domestic manual of the kind.

PICROMEL (Greek *pikros*, bitter, and *mele*, honey). Literally, bitter sweet; the characteristic principle of *Bile* (which see).

PICROTOXIA (Greek *pikros*, and *toxos*, poison). The bitter and poisonous principle of *Cocculus Indicus* (which see).

PIGMENTUM NIGRUM (Latin for Black Paint). A dark brown substance which covers the outer and inner surface of the choroid membrane. (See *Skin*.) The absence of this it is which gives the red colour to the iris and the pupil in Albinos.

PILARE MALUM (Latin for bad hair) morbid organization, or deficiency of hair. See *Trichiasis*.

PILES. The troublesome disease so called consists of tumours situated on the verge of the anus, or fundament, which tumours are formed by the distension of the veins at the extremity of the rectum, or lower bowel; they are usually about the size of a bean, sometimes much larger, and are caused by the distension of the veins with congested blood. When there is an action of the bowels they are forced down, and if there is much constipation and straining, or much exertion necessary, so as to irritate and inflame the parts, they are likely to be greatly distended, so that they cannot be pressed back again; in this case they become very large and painful, and eventually perhaps burst, to the great relief of the patient; or they may run into abscesses, and, it may be, lay the foundation of a fistula.

Piles may be either "blind" or "bleeding;" the latter is the case when the veins within the bowels become much swollen, of a red colour, and uneven surface, having their walls so thin that the slightest effort to relieve the bowels causes them to bleed freely: the former is when the swellings become filled with a fibrinous deposit from the blood, so that they form tumours and excrescences outside the anus; sometimes these, although inconvenient, are not very troublesome otherwise; if the cause which produced them be removed, they will be likely to remain quiescent for a time; but strong purgative medicines, a cold, or too much exertion, may stimulate them into activity; then they become inflamed and

very painful; then we have what is called "A Fit of the Piles." Persons with torpid livers, or with whom the venous circulation is sluggish, are those most subjected to Piles, which are no doubt the result of passive congestion of the veins about the rectum; but it will usually be found that the disease will not become fully developed, unless there is also habitual constipation. The treatment should therefore be both local and general; the first directed to remove all obstacles to the proper action of the liver, and to cleanse the large bowels of matters which may press upon the veins, and impede the return of the blood from the lowest bowel, which is the seat of the disease; to this end we should give mild aperients, combined with alteratives, beginning with pills like these: Rhubarb 1 drachm, Ipecacuanha  $\frac{1}{2}$  a drachm, Blue Pill 1 scruple, make into 24 pills, and take 2 every night until the motions become soft and sufficiently frequent, then 1 every other night. A stimulant will also be required, and Confection of Black Pepper is perhaps the best; or Ward's Paste, which is composed of Sulphur, Copaiba, Balsam, and Spices; about a teaspoonful of the former, or from 10 to 15 grains of the latter, may be taken night and morning; should the bowels not be moved sufficiently by these means, take Confection of Senna, commonly called Lenative Electuary, 3 ounces, Sulphur 1 ounce, Jalap and Cream of Tartar, of each 2 drachms, and Ginger 1 drachm, with Syrup enough to make it up into a soft Electuary; dose, a teaspoonful twice a day, or only every night, if too active.

The local treatment consists in injecting 2 or 3 ounces of Cold Water into the bowel just before the passing of a motion; this partly empties, and contracts the distended veins, and facilitates the passage of the fæces. Care should also be taken to press back within the sphincter ani, or muscular ring which guards the entrance of the bowel from the anus, every Pile which protrudes, as if suffered to remain outside, it will, by the pressure of the above muscle, become strangulated and inflamed. When the Piles are in this latter condition, they should be fomented with hot water by means of a sponge every four hours or so, and the recumbent position should be maintained as much as possible; leeches, also, may be applied to them, with a linseed poultice to encourage the bleeding. If there is inflammation of Piles within the sphincter ani, make an injection thus:—Dissolve in 8 ounces of Boiling Water, Acetate of Lead and Opium, of each  $\frac{1}{2}$  a drachm, and of this lo-



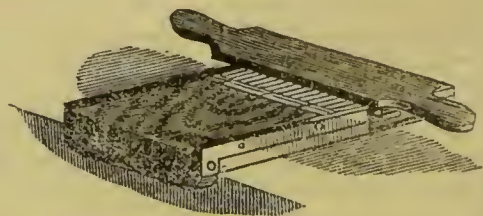
tion, when cool, throw up into the bowel with a small syringe just  $\frac{1}{2}$  an ounce, by measure, after a motion, but not more than twice in the 24 hours; only in cases where the bleeding is profuse should this powerful application be used. For internal Piles, also, leeches may be employed with advantage; they can be applied externally, and followed by warm fomentations, or a hip-bath. When Piles first show themselves, before there is much inflammation, or after this has subsided, an astringent ointment should be applied with the finger, as far as it can be thrust, night and morning; the Compound Gall Ointment is best for the purpose; or one prepared thus: Gallie Acid, 1 drachm; Powdered Opium,  $\frac{1}{2}$  a drachm; Goulard's Extract, 10 drops; Lard, 1 ounce.

Piles can only be entirely removed by means of the knife or ligature; the former is an operation which only a surgeon should attempt, as the hæmorrhage is often excessive. The latter may be managed by a non-professional person, provided there is an urgent necessity for it. The method is this: pass a needle, armed with a double silk, well waxed, or a very fine metallic wire, through the Pile, close to its base, cut the silk or wire so as to release the needle and leave four ends; tie each two of these tightly together, so that they enclose the two halves of the Pile, which then becomes tinged with blood, and may be pricked with a lancet, or other sharp instrument, and emptied by a little pressure; another stronger ligature should also be passed round above these, which secure the two halves, and tied very firmly, and then the ends of all the threads can be cut off, and a warm poultice applied to soothe and allay irritation. It is of the utmost importance to the success of this operation that the second larger ligature should be tied very tightly, so as completely to stop the circulation of blood into the Pile, which, if this is properly effected, will in three or four days slough off, and leave merely ulcers that will heal in the usual way. An injection of Sulphate of Iron, of from 2 grains to an ounce of water, thrown up every morning has been found serviceable.

Piles are scientifically called *hæmorrhoids*, which signifies a flowing of blood: persons who sit much are most subject to them. They frequently cause the greatest agony, as though (as a patient has described it to us) a red-hot poker were thrust into the bowels. The greatest care should be taken by persons so affected to prevent the accumulation of fæces in the lower bowels, and to avoid purgatives of a violent foreign

nature; gentle aperients, with aromatics, such as those above-named, and a light but sufficiently nutritive diet; exercise, when it can be taken, and tonics when there is no active inflammation, should be the course adopted.

**PILLS.** This is a very convenient form of administering medicines, especially such as are very active in their properties, and nauseous in flavour, as they can be swallowed without tasting. To prepare them it is only necessary to rub down the ingredients into a finely pulverized state, and add sufficient of some tenacious liquid to form a homogenous mass, which can be easily divided, and rolled into Pills. To effect this a pestle and mortar is required; it should be of metal, as the mass generally requires beating, to assimilate the ingredients properly; a short stout spatula, or palette knife; and a slab of marble or glazed porcelain—if marked with divisions, it is so much the more convenient, as Pill machines are expensive, and scarcely necessary in domestic practice. We give a cut of one of these useful articles, that our readers may see the advantages it possesses over the simple method of rolling out the mass, and dividing it with the knife into a certain number of portions, which have to be rounded with the fingers.



By means of this machine, the cutting and rolling is done at once, and an exact division of the mass into Pills ensured. The machines are generally made to cut and roll 24 Pills, and the sizes for which they are intended, range from 3 to 5 grains; the former is the most convenient for swallowing, and it is better to take two of such than one large Pill, which is likely to stick in the throat, and to remain for a long time undissolved when it is down. Generally speaking, a sufficient quantity of active ingredients is required to make them of a moderate size; but sometimes it is desirable to administer very powerful medicines, such as Calomel, Morphia, &c., in this way, and then it is usual to give bulk and consistence by the addition of such comparatively inert substances as Bread-crumbs, Castile Soap, Soft Extract of

Liquorice, or Conserve of Roses. When Bread is used, it should be quite stale, so that it will rub down into a powder, and amalgamate with the other ingredients. Pills made with Bread and Mucilage are apt to become very hard, and are therefore only fit for present use. Pills made with Treacle or Conserve remain soft as long as any. If Hard Soap is used, it should be scraped into the mortar first, and rubbed into a powder; Soft Soap is better than Hard, but Glycerine—better still—has latterly been much employed. For Pill-mass intended to be kept for a time, a few drops of Olive or other fixed oil is sometimes added to prevent the mass hardening. If resinous gums, such as Scammony, enter into the composition of the Pills, the necessary moisture may be Spirit of Wine, which, by dissolving a portion of the resin, will give cohesion to the compound substance; but this is apt to get hard after awhile. It is best to keep Pills in stoppered bottles; if much exposed to the air they soon harden, and become, to a certain extent, inert, because insoluble. If kept in pots, they should be closely covered; boxes are the worst possible receptacles for them. Some persons can take Pills very easily; others only with great difficulty; and some few not at all. The best method is to hold the head back, take the Pill between the finger and thumb, and passing these as far into the throat as possible, drop it into the pharynx, swallowing immediately some water, or other liquid, to carry it down. As a rule, the best time for taking Pills is bed-time; when the body is quiescent their operation is less interfered with. Of course, there are many cases which require their administration at all times and seasons. Owing to their compactness and portability, there is no form of medical preparation so convenient as this.

There are upwards of 30 forms for Pills given in the Pharmacopœias of London, Edinburgh, and Dublin, but the following are all that is necessary or desirable to keep for family use:—

*Compound Rhubarb Pill*, a mild and safe aperient, is made thus: Take of Rhubarb, Aloes, and Myrrh, all in powder, of the first 4, of the second 3, of the third 2 drachms; Hard Soap scraped,  $\frac{1}{2}$  a drachm; Treacle sufficient to form a mass; about  $\frac{1}{2}$  a drachm of Oil of Carraway is sometimes added, to render it more carminative. Dose, from 3 to 12 grains. It may be kept in powder, and made up with Treacle or Mucilage when required; and, if for use in a hot climate, this plan is best.

*Compound Colocynth Pill*. An active

aperient; perhaps more extensively used in this country than any other purgative, under the name of Pil Cociae, which is, or should be, made thus: Take of Aloes and Scammony, in powder, each 8 drachms; Colocynth, Ginger, and Sulphate of Potash, each 1 drachm; Rectified Spirit, sufficient to form a mass; 1 drachm of Oil of Cloves is a useful addition to prevent griping.

*Compound Gamboge Pill*. A very active aperient, useful for those who require powerful medicine. Take of Aloes and Gamboge, each 3 drachms; Ginger, 1 drachm; Soap, 4 drachms; Rectified Spirit, a sufficient quantity. Dose, of both these, same as the Rhubarb. Oil of Peppermint or Cloves may be added to prevent griping; and, if required yet more active,  $\frac{1}{2}$  a drop of Croton Oil to each 3 grain Pill.

*Mercurial or Blue Pill*, and *Plummer's Pill* should be obtained from the druggist ready made, as they cannot well be prepared at home; they will keep good in the mass, or divided into Pills, for a length of time. The first must be resorted to in all those numerous cases of stomach and head disorders which arise from biliary derangements. The dose is from 3 to 5 grains; it may be given with either of the aperient Pills, or by itself at bed time, followed in the morning with a Black Draught, or other saline aperient. The Plummer's Pill is the best alterative known; it must be given carefully, as it contains Calomel.

*Compound Galbanum Pill*. Antispasmodic and emmenagogue. Useful in hysteria and amenorrhœa. Made of Galbanum, Myrrh, Sagapenum, Assafoetida, Soft Soap, and Treacle; cannot well be prepared at home. Dose, from 10 to 15 grains.

*Pill of Iron with Myrrh*. Stomachic, tonic, and emmenagogue. Useful in dyspepsia, chlorosis, hysteria, &c. Made of Myrrh, Sulphate of Iron, Carbonate of Soda, and Treacle, 2 drachms of the first, and 1 I drachm of each of the three last.

*Expectorant, or Cough Pills*. (See formulae under the head *Cough*). To such of our readers as will take the trouble to acquaint themselves, by a perusal of this book, with the nature of diseases and properties of drugs, many other useful Pill combinations will be suggested. It would be quite useless for us to fill our space with a multitude of formula which may perhaps never be required. We may, however, add to the list one more form, which is of very general acceptance, and has long been known as

*Pill Rufi*. It is the Pill of Aloes with Myrrh; a good stimulant cathartic; consisting of Aloes, 4 drachms; Myrrh, Saf-



fron, and Soft Soap, of each 2 drachms; Treacle, sufficient quantity. Dose, 10 to 20 grains. Good in obstinate constipation, but to be avoided in piles or uterine diseases.

**PIMENTO.** See *Allspice*.

**PIMPERNEL.** This is the *Anagallis Arvensis* of botanists, of the natural order *Primulaceæ*; a common native plant well known as the Poor Man's Weather Glass, and Shepherd's Barometer, names suggested by the regular closing of the flowers at



noon, or on the approach of rain. This plant has been recommended for epilepsy, hydrophobia, and paralysis, but of its real properties little is known; if used at all, it should be with great caution; sheep will not eat the leaves and stalks, and the seed is said to destroy birds.

**PIMPLE.** Any small elevation of the cuticle, generally with an inflamed base. Under the head of Pimples are included several kinds of eruptions of the skin, which may be classed under two divisions *Watery* and *Matterly*: in the first division we have Eczema or Humid Tetter; Herpes, of which Shingles is a variety; Rupia; and Pemphigus. In the second division is Impetigo or Yellow-crustet Tetter; and Ecthyma, or Black-crustet Tetter. See these heads and *Skin Diseases*.

**PINEAL GLAND** (Latin *pineus*, pine). A gland of the brain, situated above the tubercula quadragemina and said to resemble a pine-apple in shape. The calculi of this gland, which Dr. Wollaston proved to be

Phosphate of Lime, are called *Pineal Concretions*. According to the theory of Descartes, this gland, which is about the size of a pea, is the seat of the soul, mind, or spirit, whatever it may be called; that mysterious principle of vitality and sentient thought which has hitherto eluded all the researches of human philosophy, and, no doubt, will continue to elude them. That breath of life "Which in the beginning God breathed into man," is not a thing to be weighed and measured by our finite faculties; its seat is everywhere and nowhere; it is and is not; its presence is life, its absence death.

**PINE APPLE.** This is the fruit of the *Ananassa Sativa*, a native of South America, where it is called *Nana* or *Nania*: it is now cultivated extensively in the West Indies as an article of export, as well as of home consumption, and also, where the climate renders artificial heat necessary, in hothouses. The plant belongs to the natural order *Bromelilaceæ*. There are several



species or varieties of this plant, whose delicious fruit could only, until recently, be enjoyed by the wealthy; but now the rapidity of communication between distant parts has very much cheapened the article, so that "Pine Apple, a penny a slice" has become one of the cries of our large cities; not often, however, is the fruit thus vended sufficiently fresh, and when it is, we must pronounce it somewhat unwholesome.

Before it is perfectly ripe, the fruit of the Pine Apple is almost caustic, and its use then is attended with danger; it is some-

times employed medicinally in the West Indies as a remedy for intestinal worms, and to promote the secretion of urine.

**PIN-EYE.** A variety of Synizesis, or Contracted Pupil, so called because the contraction sometimes reduces the pupil to the size of a pin's head.

**PINGUECULA** (Latin *pinguis*, fat). An affection of the eye occurring in elderly persons, and consisting of narrow granules towards the angle of the eye under the conjunctiva; it is sometimes called *Pterygium* (which see).

**PINIC ACID.** An acid obtained from turpentine, which is an exudation from several species of pine.

**PINS AND NEEDLES.** A popular name for the tingling in the feet, or elsewhere, which marks the return of sensation, after it has been impeded by continued pressure upon a nerve, or by paralysis. Most usually it is a sign of returning nervous power, but sometimes it ushers in an attack of paralysis; this is the case only where there is chronic disease of the brain or spine.

*Pins and Needles* are sometimes swallowed; the careless and reprehensible practice of holding them in the mouth conducing to this result; unless they occasion inconvenience by sticking in the throat, it is better to let them alone; the latter will generally work their way out of the body, and the former, which on account of their heads, cannot so well do this, will, in process of time, be dissolved by the action of the acids of the stomach on the softer metal of which they are composed; a little vinegar taken now and then will assist this process; if they occasion much pain, and a pricking sensation in the bowels, demulcents and gentle aperients should be administered, Castor Oil is, perhaps, the best. When a needle, in making its way out of the body, approaches the surface, there will be a black dot, or a line visible, with, perhaps, inflammatory symptoms; it is best in this case to cut through the intervening skin with a lancet, and extract the intruder by means of small tweezers; quite large needles have in this way been taken out of persons who were not at all aware how and when they got in.

**PINT.** In Latin *octarius*, eight, because the eighth of a gallon; the medicinal Pint is 20 ounces, it is written in prescriptions thus—O.

**PINTA, Blue stain.** A disease which prevails in Mexico, and which appears to be a variety of *Pityriasis* (which see), and *Dandriff*.

**PINUS.** The name of a genus of plants of

the order *Coniferae*, in which are included *P. Abies* the Norway Spruce, from which Burgundy Pitch is obtained; *P. Balsamea*, the Hemlock Pine, yielding Canada Balsam; *P. Larix* the Larch, yielding Venice, or Brianco Turpentine; *P. Picca* the Silver Pine, yielding Strasburg Turpentine; and *P. Sylvestris* the Scotch Pine, from which we obtain Pitch, Tar, and common Turpentine (which see).

**PIPER**, Latin for *Pepper* (which see). From this root comes *Piperina* a term applied to a peculiar substance discovered in the Black Pepper; it is analogous to the resins. See *Pepper*.

**PISIFORM** (Latin *pisum*, a pea, and *forma*, likeness). Pea-like, the designation of the fourth bone of the first row of the *Carpus* (which see).

**PISTACHIA** or **PISTACHIO NUTS.** These nuts, which are held in high esteem in the south of Europe, are the produce of the *Pistachia Vera*, a Syrian plant of the natural order *Anacardiaceae*, which is now extensively cultivated in Spain, Italy, France, &c. These nuts, which are to be obtained in this country only at considerable cost, are sweet and agreeable; they enter into the composition of ragouts and other dishes, and are used for flavouring ices and creams, besides being eaten as an article of confectionery, coated with sugar. They are considered to be not unwholesome; they yield an oil by expression, which is used for making an electuary for diseases of the stomach. *Pistachia* is the name of a genus of plants, in which, besides the above, are included *P. Lentiscus*, the species which yields *Mastich* (which see) and *P. Terebinthus*, from which is obtained Cyprus or Chio Turpentine (which see).

**PITCH** (Latin *picis*). The residuum which remains after boiling down tar. Stimulating plaisters are sometimes made of the common black Pitch, but this article possesses no advantage over the *Burgundy Pitch* (which see), and the latter is far more pleasant, and cleanly to use.

**PITUITA** (Latin for phlegm, from the Greek *ptyo*, to spit). Viscid *Mucus* (which see), also *Phlegm*. The membrane which lines the cavities of the nose is termed the *Pituitary* membrane; that portion of the brain formerly called *Infundibulum*, is now termed the *Pituitary Stem*, and the body connected with it is the *Pituitary Body*, or *Gland*, as we sometimes say.

**PITYRIASIS** (Greek *pityron*, furfur, or bran). The scientific name for Dandriff; a disease of the skin consisting of irregular patches of bran-like scales, which repeatedly



fall off, and reappear, without crusts or exoriations. Bateman has distinguished the following species of the disease:—*P. capitis*, Dandriff of the head; *P. rubra*; *P. variola*; and *P. nigra*, Red, Variegated, and Black Dandriff. This, like many other affections of the skin, is rather troublesome and annoying than dangerous; it frequently occurs in children, and most commonly in the scalp, but sometimes, with persons of fair complexion, in the face also. Among the poor a prejudice prevails against washing it off, and hence the scales are allowed to accumulate with the dirt, until the part affected presents a very filthy appearance. These scales should at all times be removed by brushing and washing gently, so as not to irritate the skin, and the parts rubbed with common Pomatum, or an Ointment composed of Red Precipitate 10 grains to 1 ounce of Lard. Adults may use an Alkaline like that recommended by Erasmus Wilson, which is:—2 ounces of Solution of Caustic Potash, to 8 ounces of Rain, or Rose water. A small-tooth comb should not be used to remove the scales.

**PLACEBO** (Latin for I will please). A name given to any medicine administered rather to please, than to benefit the patient. It is sometimes necessary to humour a nervous and irritable patient by administering bread pills, or something equally inert, and it is astonishing the effect that a faith in the means thus used will often produce; of course this is in cases where the disease is more imaginary than real, or such as may be safely left to time, and the operations of nature, provided the patient can be kept in a quiet state.

**PLACENTA** (Greek *plax*, a plum). Literally, a cake. This is commonly called the after-birth, because its expulsion from the womb follows that of the fœtus; it is a flat fleshy mass, about six inches broad, consisting chiefly of blood vessels which supply nourishment to the fœtus from the mother, through the umbilical cord, or naval string, by which the embryo is suspended, as it floats in the amniotic fluid, secreted by the amnion, the inner membrane of which, with the outer membrane, called the chorion, composes the Placenta. See *Labour*, *Navel*, &c.

**PLADAROTIS** (Greek *pladaros*, wet). A fungous and flaccid tumour within the eyelid. It appears to be but another name for Purulent *Ophthalmia* (which see).

**PLAGUE** (Greek *plege*, a stroke). The name of a disease which is endemic in Egypt and Turkey, &c., and which has made frequent irruptions into Europe. It was denominated *Iannos* by the Greeks; *Pestes* and *Pesti-*

*lentium* by the Latins. The French of the present day term it *La Peste*; the Italians *Pestilenza*; and the Germans *Pest*. We most commonly speak of it as a *Pestilence* (which see). This disease belongs to the class of malignant fevers; happily it is now unknown in England; its last great and fearful visitation having occurred in 1665; in Malta it has appeared as late as 1816. Its *symptoms* are thus described by Dr. Gregory:—"A feeling of great languor and lassitude ushers in an attack, which for the most part happens towards evening. There is always a cold stage, though it is seldom of very long duration. Heat of skin, headache, and giddiness succeed. The pain of the head is referred to the temples and eyebrows; the eye appears heavy, dull, and muddy. The expression of the countenance changes in a remarkable manner. Sometimes there is a wild and furious look; sometimes a look claiming commiseration, with a sunk eye and contracted feature. The most striking of all the early symptoms of Plague is staggering, and the sudden extreme prostration of strength. A strong tendency to void the urine is generally noticed. The stomach is very irritable, and rejects almost everything presented to it. The tongue is white and moist. The bowels are sometimes torpid, and at other times loose, the evacuations being at all times highly offensive. The speech falters. The pulse is at first small, hard, and quick, but, after the appearance of buboes (which, after one, two, or at the farthest, three days, begin to form in the armpits of women, and the groins of men) it becomes fuller and softer; should these not form, the patient dies delirious very quickly. The pulse is sometimes intermittent; in point of frequency its average may be stated at 100. The heat of the skin is seldom very intense. The head is occasionally perfectly clear and collected; at other times stupor occurs immediately after the occurrence of the fit. Some cases of this disease are ushered in by a violent fit of mania; the greatest indifference with regard to recovery prevails, and is always reckoned a most unfavourable symptom."

This disease runs its course in a very short time, proving fatal in the great majority of cases; if the patient survives the fifth day, he commonly recovers.

The remedial measures recommended are various, but none seem to have much effect; therefore it is useless to detail them, the more especially as this is not a disease with which our readers are likely to be called on to grapple. The Plague is un-

doubtedly contagious; but, says Gregory, "the contagion spreads to a very small distance only from the body of the patient; the consequence of which is, that the disease is seldom, if ever, communicated except by actual contact. The dead body does not communicate the disease so readily as the living. The contagion is readily imparted to *fomites* in which it may lurk for a very long time, more particularly if excluded from the air."

Never more, we trust, will the doleful cry—"Bring out your dead!" sound through the deserted streets of a Plague-stricken city in this favoured land of ours; never more may the red cross, marked upon the door, cut off all communication between the dead and dying within, and those without, who, with trembling steps, go about their necessary business, fearing to meet death face to face at every turn. Much as there is yet to be done in the way of drainage and ventilation, and imperfectly as sanitary laws are yet understood and acted upon by the great body of the people, yet there cannot be a question that the last century has seen great improvements in this respect, and to these may in a measure be attributed, our immunity from this fearful pestilence, which indeed "walketh in darkness," wherewith God has seen fit to visit this nation in times past.

**PLANTAIN.** The plant commonly so called, which is the *Musa Paradisiaca* of botanists, belonging to the natural order *Musaceæ*, is



a native of India, but is now cultivated throughout the tropical parts of Asia, Africa, and America, to the natives of which it affords an agreeable and wholesome article of food, the ripe fruit being scraped and served up as bread. Humboldt has calculated that a piece of ground 100 yards square, planted with 40 Plantains, would produce 4,000 lbs. weight of fruit, while wheat would produce only 30 lbs., and potatoes

1,000 lbs. It is, however, with another plant, called the Greater Plantain or Waybread, *Plantago Major*, of the natural order *Plantaginaceæ*, that we are now chiefly



concerned. The Leaves of this, which is a native plant, are bitter and astringent, and have long been held in popular esteem as a vulnerary; they are still used as an external application to ulcers and indolent scrofulous tumours. The Root has been thought useful in intermittents, but its action appears to be very feeble. A mucilage prepared from the seeds has been found of great service in the catarrhal and mild inflammatory form of diarrhœa.

**PLANTARIS** (Latin *plantar*, the sole of the foot). The name of a part situated in the sole of the foot, and of a muscle arising from the external condyle of the femur, and inserted into the inside of the os calcis: it serves to extend the *Foot* (which see).

**PLANUM OS** (Latin *planus*, smooth). An old name, but little used now, for the orbital portion of the ethmoid bone.

**PLASTERS.** These are compounds of gummy resins, and other adhesive and tenacious substances, used as outward applications; they may be either simply adhesive, as the common Diachylon, or sticking Plaster, or the isinglass or Court Plaster; they may be protective as the Lead Plaster; stimulating like Burgundy pitch; or warm like Cummin Plaster, &c. Out of a long list of pharmaceutical preparations of this class, we cite the following as the most adapted for domestic use:—Common adhesive



or Diachylon, Isinglass, and Soap Plasters, are simply protective, as is also the Lead Plaister: Belladonna and Opium, anodyne; Cantharides, or Lyttæ, blistering; Cummin and Galbanum, warm and stimulant; Mercurial, discutient; Robrans, or Iron, supporting and strengthening; the latter is commonly used as an application to weak or relaxed parts, such as the wrist, ankle, after a sprain; or the back, when the spine wants support; both Cummin and Galbauum are used for the same purpose, but these are too stimulating for many skins, causing unbearable irritation; indeed, with some, even Robrans will do this; in such a case the Lead Plaster had better be applied. The latter is one of the best protections for the backs and other parts, of those who are obliged to lie much in one position. (See *Bed Sores*.) This should be kept in the roll, and spread when wanted; as, if kept spread, it very soon cracks and peals off. Most Plasters intended for use in this or other *temperate* climates, had better be purchased ready for use, as the spreading, which is done by machinery, is much more smooth and even than can be effected by the hand; the substance now generally employed as the base, is a stout, smooth kind of calico, or dimity; leather, which formerly was much employed, is now so very seldom. Emigrants going to *hot* countries should take plaisters in the roll, and spread them as required upon any convenient material; even paper will do if leather or calico cannot be readily procured; they should take with them a *Plaster spatula* of which we here give a cut.



When wanted for use, thrust the flat end into a fire, and let it remain until sufficiently heated to dissolve the Plaister without causing discolouration; before it is applied to the substance to be melted the heated part should be rubbed on a mat, or other rough place, to cleanse it; if much smoke arises on the application of the iron to the roll, the former is too hot, and should be dipped into water. Let the Plaster drop all over the substance on which it is to be spread, and then with the spatula blend the little lumps, and rub it down until an even surface is obtained; it is best to leave a clear margin of about a quarter of an inch all round, as shown in the diagrams under the head of *Blisters* (vol. 1 p. 104), where also will be seen the most common shapes, with directions about size, &c.; this however, of course, varies greatly according to circumstances, sometimes merely

a narrow band being required, and sometimes a large broad extent of covering. It is a popular fallacy to suppose that Plasters exert any healing influence, they merely protect injured parts from external influences, and, by keeping the edges of wounds, &c., in close apposition to each other, allow the healing powers of nature to have fair play; for wounds, cuts, &c., there is no better adhesive application than the common Diachylon and Soap Plasters, and one or other of these should always be kept in a house. (For mode of application see *Wounds*.)

To remove Plasters in the least painful manner, and without danger of injuring the raw parts beneath, it is necessary to damp them for some little time with a sponge soaked in warm water, or if it is in the hand or any part that can be so treated, immerse it therein for some time; the Plaster will then come off easily, if the strips be taken up separately, beginning at the side farthest from the seat of injury.

PLASTER OF PARIS. Sometimes called *Gypsum* (which see), also Sulphate of *Lime*.

PLATEIASMA (Greek *platys*, broad). A defect in speech, generally observed in persons whose lips are unduly thick, or as it is called blubber-lipped.

PLATYSMA - MYOIDES (Greek *platys*, broad, *mys* a muscle, and *eidos* likeness). A muscular expansion arising from the cellular substance of the neck, and inserted into the lower jaw, whence it extends superiorly to the face: it is also called *Musculus cutaneus*. It drives the skin of the cheek downwards, and, when the mouth is shut, brings the skin under the lower jaw upwards.

PLEASURE. The excitement, both of body and mind, which arises from innocent Pleasure is no doubt conducive to health, and the wise physician will always recommend this as one of the preservatives of that greatest of earthly blessings. Especially is it desirable that children should have a large share of enjoyment: it is necessary to a proper development of both their moral and physical powers. To the invalid, as a relief, or palliative, it should be afforded as much as possible. It will not cure disease, it is true, but it will in some measure assist the beneficial action of the remedies administered, and it will help to prevent the mind from sinking into that state of despondency which is the most unfavourable to the success of remedial efforts.

PLETHORA (Greek *pletho*, to fill). Repletion; or excessive fullness of the blood-vessels. Phethoric persons are those with

whom there is the greatest tendency to inflammatory diseases; they are stout, and of a florid complexion, short-necked, and short-winded; sometimes very active, and capable of great muscular exertion, but, as a rule, rather sluggish and inactive. They, as it is commonly said, "make blood too fast," and with them, therefore, there is always danger of congestion and apoplexy. How to avoid this danger, is the question which will, it is likely, be asked. We reply.—By avoiding stimulating drinks, and over-indulgence in the pleasures of the table; by taking regular exercise, and plenty of it; by tepid bathing, or sponging the skin; and by the employment of saline aperients frequently, to keep the bowels well open. They should not, however, be acted on violently by drastic purgatives; a weak solution of Epsom Salts, or Seidlitz Powders, with now and then 5 grains of Colocynth, and 3 grains of Blue Pill, taken at bed-time. Sometimes bleeding is necessary; but this means of depletion should not be practised too frequently; it affords, perhaps, quicker relief from the head-ache, heaviness, and lassitude which often affect the plethoric, but it weakens the circulation, and impairs the tone of the system. Plethoric persons sometimes obtain relief in a natural manner: they have bleeding at the nose, or an attack of piles, or of diarrhœa. For this they should be thankful; for a safety-valve is found through which relief can be had for the system, without resorting to violent medicines to obtain it, as these often do much mischief. *Plethora ad molem, ad vasa, ad venas*, is that kind in which the redundancy actually exceeds what the healthy state of the individual constitution would require to bear; *P. ad vires*, in which the redundancy is more relative than positive, it is only excessive in reference to the actual state of the system; *P. ad spatium*, in which the Plethora is referred to reduced capacity of vessels, the actual quantity remaining the same; *P. ad volumen*, in which the redundancy arises from increase of bulk, without actual increase of quantity.

**PLEURA** (Greek for the side). The thin membranous covering of the inside of the thorax, which also invests the lungs. It forms an extensive process, of which the different parts are distinguished as *P. pulmonalis*, that which covers the lungs; *P. diaphragmatica*, *P. pericardica*, and *P. costalis*, the reflected membrane, parts of which are so severally named in reference to surfaces to which they adhere. The various affections of the Pleura are thus named: *Pleuralgia*, or *Pleurodynia*, pain or ache in

the side; *Pleuritis* or *Pleurisy*, inflammation of the Pleura; *Pleuropneumonia*, the complication of acute Pleurisy with Pneumonia; *Pleurosthothnus*, Tetanus of the lateral muscles; a spasmodic disease in which the body is bent on one side.

**PLEURISY.** This, which is the most common form of the above-named diseases, may be caused by exposure to cold, blows, falls, or anything which gives rise to inflammation in other parts; those of a full plethoric habit are chiefly subject to it.

The early symptoms are generally cold chills, shivering fits, and rigor, which is followed by acute pain in the side, a flushed countenance, difficulty of breathing, dry cough, and full, hard, and frequent pulse. Pain is nearly always present, generally in a particular spot under one of the breasts, but sometimes at another part of the chest, or on the shoulder, the armpit, or under the collar bone; it is greatly increased by pressure, coughing, and deep inspiration; the patient, therefore, breathes thick and short, suppresses coughing as much as possible, and fears to exert himself, or to lie down. Sometimes the inflammation causes a sticking of the Pleura, and adhesion of the membrane covering the lungs, and that which lines the chest; at other times there is an effusion of fluid into the cavity.

*Treatment.*—Copious bleeding from the arm should be at once resorted to if the patient can bear it, to be continued at intervals until the pain and difficulty of breathing is relieved. Leeches, or cupping, and a warm poultice to the seat of pain; a large blister after the latter comes off if necessary; a full dose of Calomel immediately after the bleeding; and then Tartar Emetic about every two hours, beginning with  $\frac{1}{2}$  a grain and increasing it to 2 grains; if this produces vomiting and purging lessen the dose again, and add 6 drops of Laudanum to each. When the urgent symptoms are relieved, give Calomel and Opium Pills, 2 grains of the former to  $\frac{1}{4}$  grain of the latter every four hours, until the gums are affected; or if this causes watery evacuations, give Grey Powder in 3 grain doses, or rub in a drachm of Mercurial Ointment every 2 hours; the diet must be low, and perfect quiet maintained; the temperature of the room kept up to about 60 deg. Fahr., and the patient somewhat elevated in the bed. Should symptoms of exhaustion arise, the difficulty of breathing increase, and coma or delirium be threatened, recourse must be had to stimulants, such as Beef Tea, with Wine, &c. The following mixture may also be given: Sesquicarbonate of Am-



monia and Laudanum of each  $\frac{1}{2}$  a drachm, to Camphor Mixture 6 ounces; take a table-spoonful every one, two, or three hours, as required.

When the patient is convalescent, a nutritive, liberal, but not stimulating diet should be allowed; a regular state of the bowels preserved, and exposure to cold or wet carefully guarded against. A *Spurious Pleurisy* sometimes occurs; it is a spasmodic affection of the muscles of the chest, and is rheumatic in its origin. With this there are not the symptoms of inflammation nor difficulty of breathing, except that caused by the pain or stitch in the side. Exposure to cold or violent exercise will also cause this; it generally yields to warm applications, mustard poultices, or stimulating liniments, if not, leeches may be applied. The best medicines in this case will be pills of Colocynth 3 grains, with Extract of Colchicum  $\frac{1}{4}$  of a grain in each, taken every night, and three times a day a Seidlitz draught, with 15 grains of Wine of Colchicum and 6 of Laudanum in each.

**PLEXOMETER** (Greek *plexos*, percussion, and *metron*, a measure). A term applied by M. Parry to the ivory plate used by him in performing mediate *Percussion* (which see).

**PLEXUS** Latin *plecto* to weave). A term applied to a net-like crossing and intertwining of blood vessels, absorbents, or nerves, where their minute branches spread out over a considerable surface.

**PLICA POLONICA** (Latin *plica*, a fold, from *plico*, to knit together). A disease of the hair, which causes it to be plaited or matted together, occurring most frequently in Poland. It has been distinguished by Alibert according to the form it assumed, as *Plique multiforme*, in which the hairs form a number of ropes hanging round the face like serpents; *P. a queue, ou solitaire*, in which the whole hair is matted into one long plait, or tail; this chiefly occurs in females who wear their hair after the natural Polish fashion; *P. en masse, ou larvee*, in which the hair is matted together in one compact mass, which covers the head like a helmet. It has been erroneously said that in this disease the hair both bleeds and possesses feeling; the notion has no doubt arisen from the irritability of the skin at the roots of the hair, causing bleeding and great tenderness there. This disease seldom affects any other part than the scalp, from which an offensive-smelling secretion exudes, which sticks the hair together, and renders the head perfectly loathsome, it being generally infested with vermin. The only treatment, which is

known to be beneficial, is the removal of the hair and strict cleanliness.

**PLUMBUM** (Latin for Lead). A term now applied to this metal and its preparations entirely, although it was formerly used as a general term. Thus: *Plumbum album* was tin; *P. nigrum*, the metal itself (see *Lead*); *Plumbago*, and Black-lead, are names which have been erroneously given to carburet of iron. *Plumbagin* is a principle which has been extracted from a plant of the natural order *Plumbaginaceae*, called *Plumbago Europæa*, or Leadwort, which is acrid in all its parts, particularly the root, which, when chewed, excites a flow of saliva, and has been recommended for tooth-ache; a decoction of it in Olive Oil is said to have been used as a successful application for the itch, old ulcers, and even cancers. It is no doubt a powerful vesicatory and rubefacient. We give a cut of the plant.



**PLUMMER'S PILL.** This is the Compound Calomel Pill of the Pharmacopœias, and is a very useful alterative and diaphoretic medicine; it acts upon the bowels very mildly, if at all, and may be taken for a long time without causing anything like salivation. It is often prescribed in skin diseases, and old syphilitic affections. The dose is from 3 to 10 grains every night.

**PNEUMONIA** (Greek *pneumon*, the lungs, from *pneo* to breathe). Inflammation of the substance of the lungs is so called. Although exhibiting much the same symptoms, and open to a similar line of treatment, it is

together distinct from inflammation of the investing membrane of the lungs, called *Pleuritis* (which see). This is one of the most common, as it is also the most dangerous form of pulmonary inflammation; it is called *lobar*, *lobular*, or *vesicular*, according as it affects the whole, or continuous parts of the lobes, their polygonal subdivisions, or vesicles in general. Laennec arranges the general effects of Pneumonia into three degrees: Congestion or Obstruction, Hepatization, and Purulent Infiltration; the two latter are distinguished by Andral as 1st Red, and 2nd, Grey Hepatization. So similar in every respect are the symptoms and treatment of this form of lung diseases to those described under the head of *Pleuritis*, that we need only refer our readers to that article for information.

From the same Greek root, *pneumon*, we have the medical terms *Pneumatocele*, hernia distended with flatus or wind; *Pneumo-thorax*, a collection of æriform fluid in the cavity of the pleura; *Pneumatosi*, a distension of the cellular membrane by air; and *Pneumatics*, the science which treats of the mechanical properties of air and other compressible fluids.

PODAGRA (Greek *pous*, a foot, and *agra*, seizure). Gout in the foot (see *Gout*).

PODOTHECA (from the same root *pous*, with *theca*, a receptacle). The cuticle of the foot, applied to an anatomical preparation: so *Cheirotheca*, the cuticle of the hand.

POISONS. The question of What are Poisons? is one by no means easy to answer, as almost every substance which in an over-dose has a poisonous action, when given in a lesser quantity, has a remedial one; and again, the most common and nutritious articles of diet do, when taken in certain conditions, or in certain states of the system, produce poisonous effects.

Taylor, in his "Manual of Medical Jurisprudence," gives this definition—"A Poison is a substance which, when taken internally, is capable of destroying life without acting mechanically on the system." But this is scarcely comprehensive enough, for there are substances which act as Poisons without being taken internally, such as the Carbonic Acid and other deleterious gases; the virus of venomous creatures; and the vehicles of contagious and infectious diseases. This definition will exclude such substances as have a purely mechanical action, such as Pins and Needles, Pounded Glass, Boiling Water or Oil, &c.; and make it necessary for us to consider the corrosive action of mineral acids and alkalies as purely chemical, if we are to class these as Poisons at all, as we

surely must. So, too, Corrosive Sublimate, Cantharides, Arsenic, Mercury, &c., produce their peculiar poisonous effects, when applied to the skin. But this is a question into which we need not go at all deeply. Sufficient for our purpose will it be to notice the general actions of Poisons, and point out the best remedies.

And first as to their effects.—The action of a Poison may be both local, and general, or remote; the first in chemically destroying the part with which it comes in contact, as the mineral acids and alkalies do by corrosion; as Cantharides and Mustard by irritating and inflaming; or as Morphine, Aconite, Prussic Acid, &c., by paralyzing the sentient extremities of the nerves. As instances of the remote action, we may mention that of Cantharides on the urinary organs; of Mercury on the salivary glands; of Digitalis on the heart; and of Strychnine on the spinal marrow. Again, says Taylor, "Poisons generally, whether they corrode, irritate, or produce no apparent alteration on the part to which they are applied, destroy life by producing a fatal impression upon a remote vital organ."

With a view to furnish a general theorem for the administration of antidotes, Dr. Paris drew up the following synoptical table of Poisons:—

CLASS 1.—Poisons which act primarily through the medium of the nerves without being absorbed, or exciting local inflammation.

Order 1.—By which the functions of the nervous system are suspended or destroyed. (*Death by suffocation from Paralysis of the Respiratory Muscles*).

Alcohol, Aconite, Camphor, Essential Oil of Almonds, Salts of Lead, Croton Tiglium, Opium, Oil of Tobacco. The fourth and seventh of these may also act by being absorbed; the third and fifth may have also a local action.

Order 2.—By which the heart is rendered insensible to the stimulus of blood.

(*Death by Syncope*).

Infusion of Tobacco, Upas Antiar, &c.

CLASS 2.—Poisons which by entering the constitution, act through that medium with different degrees of energy, on the heart, brain, and alimentary canal.

(*Death from many causes*).

Arsenic, Camphor, Cocculus Indicus, Hellebore, Hemlock, Henbane, Lettuce, Meadow Saffron, Muriate of Byrrata, Nightshade (Deadly), Opium, Prussic Acid, Savine, Squill, Tartar Emetic. Of these, Camphor, Nightshade, and Opium, have also a local action.



CLASS 3.—Poisons which, through the medium of the constitution, expend their energies upon the spinal marrow, without directly involving the functions of the brain.

(*Death by Tetanic Convulsions*).

Nux Vomica and the whole tribe of *Strichnos*.

CLASS 4.—Poisons which produce a direct local action on the mucous membrane of the alimentary canal.

(*Death by Gangrene*).

Bryony, Caustic Alkalies, Concentrated Acids, Corrosive Sublimate, Cantharides, Coloeynth, Elaterum, Euphorbium, Hedge Hyssop, Muriate and Oxide of Tin, Nitrate of Silver, Nitre, Ranunculi, Zine, Verdigris.

The commonest and simplest classification of Poisons, however, is into three divisions, viz., *Narcotics*, *Irritants*, and *Narcotic-Irritants*. In the first class, we have the strong Acids and Alkalies, including Sulphuric, Nitric, Muriatic, and Oxalic Acids, with the several forms of Caustic Potash and Ammonia; Arsenic, Corrosive Sublimate, Calomel, and other preparations of Mercury; the Sugar, Carbonate, Oxide, and other preparations of Lead; Brunswick and Mineral Green, Scheele's Emerald, with Blue Vitriol, and other preparations of Copper; Chloride of Zine, with the Sulphate of the same metal, commonly called White Vitriol; Nitrate of Silver, Tartar Emetic, Savin, Spirit of Turpentine, Cantharides; sometimes Fish, especially Shell Fish; Meat, either too fresh or too stale; and Game eaten in the condition termed "high."

All these, then, and a variety of others, which might be named, are Irritant Poisons, which, when swallowed, usually occasion vomiting very soon, with the common signs of inflammation of the bowels; some of them, which are corrosive, such as the Mineral Acids and Alkalies, produce a burning sensation extending from the gullet to the stomach, directly they come in contact with the mucous membrane, of which they effect the destruction; Corrosive Sublimate does this particularly, and is also instantaneous in its effect; the other substances above enumerated are not so rapid, although they are equally, if not more dangerous.

For the Mineral Acids the readiest antidote is Water, of which as much as possible should at once be drunk; this will dilute them, and then neutralization may be effected by Carbonate of Soda or Potash, Magnesia, Soap in solution, Chalk, Whiting; or, if these are not to be had, old Mortar or Plaster scraped from the walls or ceiling of

a room; Ice and Teed Water are also beneficial. Oxalic Acid also requires the same kind of treatment; and as much of this as possible should be removed by the stomach pump or emetics. For the Alkalies, such as Pearlash and Ammonia, Vinegar may be given, or any diluent Acid, such as Lemon Juice, or Tartaric Acid, mixed with Mucilage or Starch. Arsenic cannot be neutralized, and therefore should be removed from the stomach as quickly as possible; there is no antidote to this Poison; if it remains in the system in sufficient quantity it is sure to destroy life. (For further particulars respecting it, see *Arsenic*.) Corrosive Sublimate, although not less deadly in its effects, is not so dangerous, because it can be readily converted into Calomel by the addition of Albumen; the patient should, therefore, swallow White of Egg in considerable quantity, and then take a dose or two of Castor Oil with 20 drops of Laudanum in each, to soothe the irritation of the bowels and carry off the Poison, which the Oil also helps to decompose.

For Calomel, Red or White Precipitate, or Vermilion, the same course as above recommended should be pursued.

Red Lead and the Carbonate of that metal are both insoluble substances; the great object, therefore, must be to effect their removal by purging and vomiting; the bowels may be in some measure protected from their action by mucilaginous drinks. Here again Castor Oil is the best purgative. The same remedies should be used for Sugar of Lead, which is a soluble salt.

For Nitrate of Silver, give a tablespoonful of Common Salt, with plenty of warm water. This decomposes the Poison, and acts as an emetic also.

For Blue Vitriol, Verdigris, and the other preparations of Copper, give White of Egg and Castor Oil. Several of these are themselves emetic, and will work their own expulsion with a little assistance, as will Tartarized Antimony, generally called Tartar Emetic; but, to prevent bad after-symptoms, it is best to neutralize the Antimony with some Bark, or Galls, given in the form of powder or decoction; to relieve the sickness, give Opium, in grain doses, every six hours.

Chloride of Zine has a very rapid corrosive action; it readily dissolves; if speedily diluted with warm water will itself act as an emetic. Encourage the vomiting, and after it give Castor Oil.

Spirits of Turpentine, Nitre, Savin, and Cantharides, besides their irritant action

in the bowels, act specifically on the kidneys; for these give emetics and Castor Oil, with plenty of Barley Water, or other emulcent drinks, with opiates.

Fish, Meat, and Game are generally beyond the reach of emetics before they produce their peculiar symptoms of poisoning; give, therefore a full dose of Castor Oil, with Laudanum, and if, as is often the case, there are colicky pains, give Calomel and Opium, of each a grain, every 4 hours, to the extent of 6 doses if required.

Under the head of *Narcotic Poisons* we must place Prussic Acid, Essential Oil of Bitter Almonds, Opium and its preparations, Woody Nightshade, Alcohol, Ether, Chloroform, &c.

The decomposition of the first two of these may be effected by means of Ammonia; therefore give a teaspoonful of Sal Volatile or Hartshorn in Water; apply strong Liquor of Ammonia, or Smelling Salts, to the nostrils; and, to stimulate the nervous system, pour on the back of the head and down the spine a stream of Cold Water from a jug held at a considerable height. Opium should be removed from the stomach by means of the pump, or strong emetics; Sulphate of Zinc in 30 grain doses every quarter of an hour, with plenty of warm water, is the most effectual. Great drowsiness and stupor is produced by this poison, which must be combated by all possible means; a teaspoonful of Sal Volatile in strong coffee is the best stimulant; it should be repeated about every half hour. For at least 12 hours after swallowing the poison the patient must not be suffered to give way to the drowsy inclination, for if he sleeps he will probably wake no more; he must be kept constantly in motion, and be stimulated by pinching, pricking, flagellation with a wet towel, or any means that may suggest themselves; when it is found that the patient can keep awake for an hour by the simple exercise of his will, he may be suffered to sleep, but not before.

Woody Nightshade and Hellebore, must be removed from the stomach by the means above directed; the soporific effects are not so strong as those of Opium, and may be overcome by gentler means. Alcohol, Ether, and Chloroform should be removed by the stomach-pump or emetics (for further particulars respecting the first, see *Intoxication*.) Many deaths have occurred from inhalation of the latter, and in very few cases has it been found possible to restore animation when the state of syncope has supervened; efforts should, however, be made to introduce air into the lungs, and

to stimulate the muscles of respiration to action by passing the finger down the throat and tickling the entrance of the wind-pipe, &c.: the same attempts to inflate the lungs as those directed under the head *Drowning* should be persevered in for a long time. Water should be gently sprinkled, but not dashed in the face.

The *Narcotic-Irritant Poisons* are Nux Vomica or Strichnia, Colchicum, White Hellebore, Digitalis, Belladonna, Conium, Monkshood, Laburnum Seeds, Yew Berries, Poisonous Mushrooms, &c.

The first of these is one of the most deadly of vegetable Poisons, but if free vomiting can be produced directly it has been taken, there is a chance for the life of the patient, to whom, after the vomiting has ceased, should be given a teaspoonful of Sal Volatile in Water every two or three hours until he is sufficiently recovered. (See *Strichnia*).

For all the rest of this class of Poisons the same kind of treatment is necessary; Colchicum and Hellebore exhaust by purging, and by depressing the action of the heart, and this latter effect is ascribable to all. The stomach-pump or emetics, Castor Oil and Laudanum, followed by Brandy and Sal Volatile, are the remedies to be used. Poisonous Mushrooms have been known to remain in the stomach undigested, therefore vomiting should be produced in this case, although the Poison may have been long swallowed.

There are many other vegetable Poisons of the Narcotic-Irritant class, as well as of the other kinds here specified which might have been included in the above list; but as allusion to all of them is made under their several heads, it was scarcely necessary to give them here. We have mentioned the principal Poisons, and indicated, we trust with sufficient clearness, the general plan of treatment to be pursued.

The *symptoms* of poisoning in particular cases are given under so many heads which have relation to the nature and properties of the Poisons themselves, that we scarcely need dwell upon them here at any great length. With those of the *Irritant* class, we have generally violent vomiting, purging, and intense pain in the abdomen, usually occurring within half an hour of the swallowing of the deleterious substance; with those of a corrosive nature the effect is immediate, an acrid, burning sensation in the throat attending the act of swallowing the Poison. The *Narcotic* class produce vertigo, paralysis, coma, and sometimes tetanus; these have no acrid taste, and do



not, like the first, inflame the viscera, nor cause purging and vomiting. *Narcotic-Irritants* have a compound action—that is, their symptoms include those produced by both the other classes. When any of these symptoms come on suddenly to one who, up to the time of the attack, has appeared in good health, and especially if it be soon after swallowing either solids or liquids, we may reasonably suspect that he is poisoned, and should at once endeavour to find out what he has taken likely to produce such results. We should, however, bear in mind that there are certain forms of disease which, as it were, simulate the symptoms of poisoning, such are cholera, enteritis, peritonitis, strangulated hernia, hæmatemesis, &c.

In apoplexy, epilepsy, some diseases of the heart and brain, and rupture or distension of the stomach, we have the same symptoms as those of narcotic poisoning. It behoves us, therefore, to make close inquiry into the cause of the dangerous symptoms, and not adopt remedial measures too hastily, although we know that promptitude in adopting the right measures is of vital importance. Hence we see how desirable it is that one skilled in the diagnosis of disease should be at once summoned in a case of suspected poisoning; if the aid of such cannot be procured at once, it is better to adopt such means as a limited knowledge will suggest than to let the patient perish for want of help. It is popularly believed that there are certain antidotes for particular Poisons, but this is not the case; there are, therefore, three great principles to be kept in view all through the course of treatment: 1st, to remove the poisonous matter from the stomach as soon as possible; 2nd, to protect the coats of the stomach against the action of the Poison, by involving it in some viscid substance; 3rd, to act upon the substance chemically so as to effect a change in its nature—to render it inert or innoxious—this, as we have shown, can in some instances be done; 4th, to combat the constitutional effects of a Poison by such means as applying stimulants and antagonists to narcotics and the like.

**POLYCHRISTUS** (Greek *polys*, many, and *krestos*, useful). Applied to medicines which have many virtues or uses. We find this prefix also in several botanical names, and the medical terms *Polydipsia* (Greek *dipsa*, thirst), Excessive thirst; *Polysarxa* (Greek *sarx*, flesh), Bulkiness or *Corpulency* (which see, and *Fat*).

**POLYGALIC ACID.** An acid prepared from the Virginiansnake-root, the *Polygala Senega* of botanists, and some other species; from

which also is obtained the alkaloid *Polygalin*, being the active principle of the plant.

**POLYPUS** is also a compound of this prefix, with *pous*, a foot; it is applied to a tumour generally occurring in the nose, but sometimes in the womb, or the ear, and so named from an erroneous idea that it had many roots or feet; it is the result of an excessive growth of the mucous membrane, and sometimes assumes a malignant character; it may be either of a soft texture so as easily to tear and bleed, or firm and fibrous, or even almost cartilaginous; the colour is commonly a yellowish grey, and it has little or no sensibility, although it causes much pain by its pressure upon the surrounding parts, stoppage of secretions, &c. It is attached to the surface from which it springs by a narrow neck like a footstalk; when in the nose it interferes with the breathing, so that the patient sleeps with the mouth open; in this situation it may sometimes be destroyed by the persevering use of astringent applications, such as the Tincture of Steel applied with a camel hair brush, twice a day, or a little Burnt Alum taken like snuff. In the womb, Polypus can only be treated by a surgeon, as here, and indeed elsewhere, an operation is generally required for its removal, ligatures, scissors, or forceps being used for the purpose; of the kind of instrument we give an example or two: the operation if skilfully performed is not a dangerous one, and it is necessary, for although a Polypus is commonly of slow growth, it is at all times very inconvenient, and often it increases very rapidly, and assumes a malignant character, in which case there is little hope for the patient. See *Tumour*.

**POMPHOLYX** (Greek for a water bubble). An eruption of bullæ, or blebs, clear vesicles without any surrounding inflammation, and unattended with febrile symptoms; they break and heal without leaving any scale or scar. Willan divides them into the following species—*P. benignus*, *P. diutinus*, and *P. solitarius*, Mild, Chronic, and Solitary Water Blebs.

But little is required in the way of medical treatment for these eruptions, which seldom produce much constitutional derangement. A saline aperient will be sufficient, just to keep the system cool at first, and afterwards, perhaps, a short course of tonics, but this latter is only necessary in exceptional cases.

The term *Pompholyx* has been sometimes applied to the White Oxide of Lead.

**POMEGRANATE.** This plant, which is the *Punica Granatum* of botanists, and belongs

the natural order *Myrtaceæ*, yields a pleasantly acid and sweetish fruit, which is used for the same purposes as the orange. The bark (*Cortex granatum*) is powerfully stringent, and is employed in the form of



decoction as a gargle for sore throats; it is also given in diarrhoea, and used as an injection in leucorrhœa; the powder has been given in intermittent fever, dose 20 grains, but it is not so effectual as Bark, or Quinine; the natives of India give it as a vermifuge, and it is said to have proved successful in some cases in this country. A bitter principle has been extracted from it and called *Punicin*.

**POMUM ADAMI** (Latin for Adam's Apple). A name given to the prominent part of the thyroid cartilage, so called because it projects more in men than in women.

**PONS VAROLII** (Latin for Varolius' Bridge). This is the central part of the brain, situated between the cerebrum and cerebellum, and united to both. Gall named its anterior surface the *Commissure of the cerebellum*.

**POPULITEUS** (Latin *plico*, to fold). A muscle arising from the external condyles of the femur, and inserted into the superior triangular surface at the back of the tibia; it binds the thigh and the leg. *Poples* is the name given to the ham.

**POPPY.** The *Papaver Somnifera*, or Common Poppy, of the natural order *Papaveraceæ*, is, perhaps, the most important plant



of the *Materia Medica*, for all its parts, but especially the capsule or seed-vessel, yield a white opaque narcotic juice, called *Opium* (which see). With us the Poppy grows wild in most parts of the country; but it is from the Asiatic provinces of Turkey, Egypt, Persia, and India, that we obtain our chief supply of this drug. The Poppy heads used for fomentations are mostly of home growth; their anodyne properties render them valuable for soothing fomentations, for which purpose they should be broken up and boiled, the liquor only being used; into this, when quite hot, a flannel should be dipped and wrung out, and then laid on the part affected, dipping it afresh as soon as it begins to cool: for this purpose the seeds need not be used, as they possess no medical virtues; they contain an oil useful in the arts, which is obtained by expression.

*Extract of Poppies* is made by boiling down 15 ounces of bruised Poppy heads in 1 gallon of water, until it is reduced to 4 pints; strain the liquor, and evaporate to a proper consistence; it is not so strong as Opium, and may be given in doses of from 2 to 10 grains, as an anodyne.

*Syrup of Poppies* is thus prepared:—Poppy heads bruised 3 pounds, put into 5 gallons of water, boil down to 2 gallons; strain, and again boil to 4 pints; strain, and set aside to cool, and allow the dregs to subside: again boil to 2 pints; and in this dissolve 5 pounds of Lump Sugar, pour into a vessel to cool, and add Spirits of Wine 5 fluid ounces; this forms an ingredient in



many cough mixtures, and is often given to children to soothe them when fretful, a most reprehensible practice; the dose for an adult is from 2 to 4 drops.

*Syrup of Red Poppies (Syrupus Rhæados)*, is made by pouring on a pound of Poppy leaves 1 pint of boiling water; let it macerate for 12 hours, then strain, and add 3 pounds of sugar; boil until well dissolved, then add Spirits of Wine  $2\frac{1}{2}$  fluid ounces; it is questionable whether there is much medical virtue in this; it is chiefly used as a colouring material.

**POPULIN.** An alkaloid found in the bark of the *Populus Tremula*, and some other species of Poplars; this bark is stomachic and tonic, very bitter, and is sometimes used as a febrifuge; its ashes, which are alkaline, are said to be drunk, mixed in water, by the people of Siberia, morning and evening, for syphilis and scorbutic affections.

**PORK.** The Jews and Mahomedans do wisely to eschew the flesh of the hog, for of all meats it is the most indigestible. According to a table drawn up by Dr. Beaumont, exhibiting the average time required for the digestion of different articles of food, five hours is the time given to Pork; the eating of which is not unfrequently followed by an attack of diarrhœa, and sometimes even by symptoms of poisoning; but, in this case, it is probable that either the animal is diseased, or that there is some peculiar idiosyncrasy in the state of the patient, which causes such an effect. Our readers will understand then, that we warn them against the use of swine's flesh; neither fresh nor pickled is it good food: although it may be taken with impunity by those who lead an active life, and have strong digestive powers. In the dried and smoked state, it is sometimes beneficial to invalids. See *Bacon*.

**PORRIGO** (Latin, to spread about). A disease of the head, sometimes called Moist Scall; it consists of an eruption of straw-coloured pustules, conereting into yellow or brownish crusts, or cellular scabs. Bate-man distinguished seven distinct species.—1. *P. larvalis* (*larva*, a mask), so named from its enveloping the face like a mask; by some this is called *Crusta lactea*, or Milk Scall; 2. *P. furfurans*; 3. *P. lupinosa*; 4. *P. scutulata*; 5. *P. declavans*; 6. *P. favosa*—that is, Furfuracious or Thievish, Lupin-like, Scalled Head, Ringworm, and Honeycomb Scall.

The treatment of these various forms of skin disease is essentially the same; they most commonly occur in childhood, and

especially during the period of dentition, and seem to be intimately connected with the disordered state of the bowels, which generally prevails at that period of increased irritability of the system. When they appear in adults they are, as a rule, preceded by some constitutional derangement, manifested by headache, an uneasy state of the stomach, loss of appetite, and febrile symptoms; in adults, too, the pustules are more extensive, and the crusts thicker and harder than in children; it is commonly the *P. favosa*. The general treatment consists in correcting the irritable state of the stomach, and clearing the alimentary canal of crude, undigested matter; a powder like the following will best effect this with children:—Grey Powder, 12 grains; Antimonial Powder, 6 grains; Sesquicarbonate of Soda, Rhubarb, and Cinnamon Powder, of each  $\frac{1}{2}$  a drachm: divide into 6 powders, and take one every other night; if for a very young child, half the strength will do. Adults may take Compound Rhubarb and Blue Pill, 3 grains of the former to 1 grain of the latter; 1 every night for the first week, every other night for the second.

The local treatment will be the application of Ointment of Zinc, Acetate of Lead or Tar with Sulphur; should it prove obstinate, apply morning and night, Ointment of Nitrate of Silver, diluted with three times its weight of Lard. Dr. A. Thomson recommends the following lotion:—Solution of the Subacetate of Lead,  $1\frac{1}{2}$  drachms; Hydrocyanic Acid, 2 drachms; Distilled Water, 6 ounces. Much depends upon diet, nothing crude or indigestible should be taken to irritate the system; and much also on cleanliness; Soap and warm Water should be frequently used, and the patient should take regular and gentle exercise; if weak he should have nutritious, although not rich food: Milk and plainly cooked Mutton are the best. These are generally tedious cases, and therefore immediate success must not be looked for. See *Favus, Skin Diseases*.

**PORRUM.** Latin for a Leek, (which see, and *Allium*).

**PORTER.** In convalescence from an acute disease, there is often scarcely anything that is more pleasant, and indeed more beneficial to the patient, than this beverage, brewed, as our readers are doubtless aware, from malt very highly dried; what else there may be in it, an analytical sanatory commissioner would sometimes be puzzled to tell; we apprehend, something very fattening, if we may judge by the burly speci-

ns of humanity who do the heavy work of breweries, and are said to consume fabulous quantities of it. From its body, taste, and dark colour, as well as the effect here noted at, we should imagine it to contain a large amount of the saccharine principle; of alcohol it has, according to Johnston, from 5 to 5½ per cent., which is much less than Crown Stout, and Bitter and Strong Ales. Many deleterious ingredients are said by me to enter into the composition of London Porter. Among them we have named opium, nux vomica, or strychnia, henbane, coloculus indicus, tobacco, extract of poppies, and copperas; but it seems very doubtful whether all, or any, of these are actually employed by the large brewers, although they may sometimes probably be by the retailers, who dilute, and then "doctor" the beverage, to give it the appearance of the genuine article, and a fictitious strength. Dr. Ure's assertion, that the best London Porter always contains opium," does not appear to be borne out, for Taylor, in his *Manual of Medical Jurisprudence*, says—"In repeating Dr. Ure's experiments, I have not obtained any results indicative of the presence of opium in this liquid."

That Porter is highly beneficial in many cases, every medical man can testify; as a tonic, it is superior to every other form of malt liquor, than which, it is less likely to turn acid on the stomach, or to cause gravelly deposits in the urine. Dr. Prout recommends its use as a tonic in diabetes, or in invalids and delicate persons, it should always be procured in bottles, and from some establishment where it is not likely to have been sophisticated.

PORT WINE, when good, is one of the most valuable remedial agents which the physician can call to his aid; but how seldom can he depend upon obtaining it genuine as imported! it has been said that ten times as much so-called Port Wine is drunk in this country as comes into it from abroad; therefore we know that a large proportion of it must be manufactured here, and how manufactured, let the analytical chemist declare. Sloe juice, and logwood, and many other substances, not so innocent in their nature, are said to be employed; and, unfortunately, it is chiefly the poor, who can only purchase the cheaper kinds, who are the principal sufferers by this adulteration.

In the low stages of fever and general debility, the use of Port Wine is commonly attended with good results; and many a convalescent from an exhausting disease has felt the good effects of its tonic and

stimulating properties; generally it contains a larger percentage of spirit than is desirable, and this is not altogether the result of fermentation, but is added by the foreign maker to render it acceptable to the English consumer. This is one of the dry strong wines; it contains, according to Brande, an average of 20.96 per cent. of alcohol: much of the colouring matter of the grape is pressed out in its preparation, as well as of the astringent principle and extractive matter: hence the dark tint of the wine, its acidity, fruity taste, and body. This stands first on the list of foreign wines for its proportion of absolute Alcohol, and fifth in the order of sweetness. See *Wines*.

PORTIO DURA. The hard portion of the seventh pair of nerves, generally known as the facial nerve, and the respiratory of the face; the soft portion of the same is called *Portio mollis*. See *Nerves*.

PORUS (Latin for a pore). A minute orifice in the skin, which serves as a passage for the perspiration, cutaneous absorption, &c.; also a small interstice between the particles of matter which compose bodies. The slender roots of the hepatic duct, arising from the granulations of the liver, are called *Pori Biliarii* (Biliary Pores). See *Liver, Skin*.

POTASH, or POTASS. An alkali which exists largely in all vegetable substances, from which it is obtained by burning; hence its common name. Its metallic base is *Potassium*, of which it is a compound, with oxygen. In an impure state it is called *Pearlash, Kali*, or *Kelp*.

Many of the preparations of this substance are used medicinally, and are justly esteemed as among the most efficacious of remedies. The *Caustic*, or *Fused Potash*, is powerfully escharotic, and is sometimes employed in the formation of issues and in the destruction of extraneous growths; being combined with lime, it is more manageable, as well as effectual. *Acetate of Potash* is mildly cathartic, diuretic, and deobstruent; it is useful in febrile diseases, dropsies, icterus, and visceral obstructions: dose, from 1 to 3 scruples; as an aperient, from 2 to 3 drachms: *Carbonate of Potash* is diuretic, antacid, and deobstruent; useful in dropsy, acidity of the stomach, and glandular obstructions: dose, 10 to 30 grains, properly diluted; 1 scruple dissolved in 8 ounces of Water, and 4 drachms of Lemon-juice, makes a pleasant effervescent draught.

*Bicarbonate of Potash* has the same properties as the last, but is less acrid. *Hypodrate of Potash* is used only externally as a caustic. *Iodide of Potassium* is much used



in secondary syphilis; it is a good alterative, and very serviceable in skin diseases and vitiated states of the system generally; the dose is from 2 to 6 grains.

*Nitrate of Potash*, or Saltpetre, is diuretic and refrigerant; in large doses, purgative; externally, cooling and detergent. Much used in dropsies, fevers, herpetic eruptions, active hæmorrhages, gonorrhœa, &c. A small piece allowed to dissolve in the mouth often removes incipient cynanche tonsillaris. Hence its utility in gargles.

*Sulphate of Potash*. This is the *Kali vitriolatum* of the old pharmacopœias. It is deobstruent and purgative, and is employed in visceral obstructions. As a purgative it must be taken in  $\frac{1}{2}$  ounce doses; as a deobstruent, from 1 to 3 scruples.

*Sulphuret of Potash* is expectorant, diaphoretic; externally, detergent. Dose, from 5 to 15 grains, in pills, twice a day.

*Supersulphate of Potash* is refrigerant and purgative. Given in cases where it is desirable to exhibit Sulphuric Acid, and at the same time open the bowels. The dose is from 1 scruple to 2 drachms.

*Supertartrate of Potash*, commonly called Cream of Tartar, is mildly purgative, refrigerant, and diuretic. Dissolved in water, with a little White Wine, Sugar, and Lemon-peel, it makes the pleasant diet drink called Imperial. Dose, 1 to 3 drachms, combined with 1 scruple of Borax, to excite the kidneys; to open the bowels, 4 to 8 drachms.

*Tartrate of Potash*, purgative; given to open the bowels in febrile diseases, mania, and hypochondriasis, and as an adjunct to senna and the resinous purgatives in solution, the griping effects of which it corrects, in doses of 1 scruple to 1 ounce. There are several other compounds of Potash with Iron and other substances.

POTATO. This common culinary vegetable is the *Solanum Tuberosum* of botanists, belonging to the natural order *Solanaceæ*. Sir Walter Raleigh has the credit of introducing it into this country, in 1568, from Virginia, but it was long before its alimentary properties were known and appreciated out of Ireland, where the great navigator first planted it. As a field crop, Potatoes were not cultivated here until about the year 1760. Next to wheat and other cereals, they are undoubtedly the most valuable for human food. According to chemical analysis, the tuberous roots, which are the parts eaten, consist of 75·52 per cent. of water; 15·72 of starch; 0·55 of dextrine; 13·47 of impure saccharine matter; 5·77 of casein, gluten, and albumen; 1 of fatty matter; 13·31 of

fibre, with coagulated albumen. This is in a fresh state. When dry, the proportion of the more nutritive ingredient, is greatly increased. The fecula, or Potato starch, in which the chief amount of nutriment consists, is, when well prepared, a beautifully white, and soft crystalline powder, readily soluble in hot water, but not at all so in cold; it is more light and easy of digestion than flour of wheat; and, for invalids, may be made into puddings, or taken as arrowroot, or used to thicken milk, or for any other purpose to which flour is applied. This preparation is superior to sago, tapioca, or any other of the exotic feculæ, and its cheapness recommends it to general use. Mixed with ground Coffee and Olive Oil, it forms a beverage more nourishing than pure Coffee; and, combined with Cocoa or Chocolate, renders these articles of diet less rich and more suitable for weak stomachs. We need not here dwell on its application to the fine and useful arts, whether in the form of dextrine or artificial gum, or in any other form. It yields a sugar which resembles that of grapes, and may be used for making sweetmeats, or as a substitute for honey, and a spirit is distilled from the tubers which is milder than brandy, and as rich in flavour as raspberries or violets. In some parts beer is made from Potatoes, combined with malt. Boiled and beaten with new milk, they are made into a kind of cheese in Saxony, and sometimes vinegar is prepared from them. Cattle feed on their haulm, and from their leaves an extract is prepared which is a powerful narcotic, and has been found serviceable in chronic rheumatism, and painful affections of the stomach and uterus. These are but a few of the uses to which the various parts and constituent elements of the Potato have been applied. As we have before said, it is undoubtedly nutritious, containing much starch and gum, and other matters required to sustain the respiratory processes, and to build up the muscular and other constituents of the animal body, but a man living solely on Potatoes, requires a very large quantity to keep him in health and strength; an Irish labourer, it is said, consumes from 7 to 10 pounds per day, and this latter quantity contains no more real nutriment than a pound and a half of wheaten bread. So we find that the Scotchman on his oatmeal, and the Englishman on bread and meat, is capable of more sustained exertion, and less liable to be the victim of epidemic diseases, than the Potato-fed Irishman. Of all vegetable food this is the best; but man requires a due admixture of animal food.

**POTION.** (Latin *potio*). Sometimes applied to a medicinal compound; a draught or dose of liquid medicine. Majendie's *Potio Pectorale* was composed of Hydrocyanic Acid, 15 drops, Syrup of Marsh-mallows 1 oz., and Infusion of Ground Ivy, 2 ozs. Dose, a teaspoonful every two hours, for coughs and spasmodic affections of the bronchiæ.

**POULTICE.** On the utility of Poultices in cases where the application of warmth and moisture is required we need not here insist, for all who have had anything to do with the treatment of disease are fully aware of this. Very often, however, they fail of producing the expected good effects because they are not properly prepared or applied; we therefore deem it well to give directions for the preparation of those most commonly employed.

**Bread and Water Poultrice.**—Put into a basin a sufficient quantity of bread crumbs, and cover it with boiling water; let it stand with a plate over it to keep in the steam for a minute or two, then draw off the water, and turn out the contents of the basin into a piece of folded linen, sufficiently large to cover the affected part; to which, having first spread over it a little lard, to prevent its sticking when dry, apply the Poultrice next the skin, keeping it close by means of a bandage, or wrapper of some kind. If not required warm, merely soak sufficient bread in cold water, and apply it, when saturated, on a fold of linen, as directed above.

**Linseed Meal Poultrice.** Pour some boiling water into a basin, and add gradually the meal, stirring with a stick until the mixture becomes quite a stiff paste; then spread it an inch thick on folded linen, and apply.

**Mustard Poultrice.** To make this take as much as may be required, in equal proportions, of best Flour of Mustard and Linseed Meal, or Bread Crumbs; put them into a basin previously warmed, and add gradually as much boiling water as may be necessary; grease, and apply as above directed: or simply mix the Mustard with hot water, spread the paste on linen, place over it a piece of Muslin, and place it next the skin; if it is desirable to make it more stimulating, some scraped Horse Radish will have this effect. The length of time that a Mustard Poultrice may remain on must be regulated in great measure by the feelings of the patient. (See *Mustard*.)

**Yeast Poultrice.** Add to half a pound of Linseed Meal, in a basin, a quarter of a pint each of Beer Yeast and Water heated, mix gradually with a spoon or stick: spread on

linen, and apply. It should be renewed every six or eight hours, as should the Linseed Meal Poultrice.

**Charcoal Poultrice.**—Add to a common Bread and Water Poultrice, while quite hot, about an equal quantity of Linseed Meal and Charcoal; mix, spread on linen, and apply. Useful for gangrenous and fœtid sores.

**Salt and Water Poultrice** is made like one of Bread and Water, by merely dissolving a table spoonful of Common Salt in the Water previous to mixing: this is recommended by Cooper for chronic abscesses. For method of making *Bran Poultrices* (see *Bran*).

Almost any soft substance which will retain heat and moisture may be used to form a Poultrice, which should be perfectly smooth, and free from lumps or hardness; recently a preparation called *Spongia Piline* has been employed; this has merely to be soaked in a hot liquid, drained out, and laid on with oiled skin, or some other waterproof material, over it; indeed, all Poultrices should be so covered, the heat and moisture is thus retained longer than they otherwise can be.

**Medicated Poultrices** are frequently prepared by using a decoction or infusion of the medicinal agent, such as Hemlock, or Poppy, instead of plain Water, with Bread or Oatmeal. In the Dublin Pharmacopœia this direction is given:—Take of Dried Hemlock Leaves 1 ounce; Water, a pound and a half; boil down to a pound, and add of Powdered Hemlock Leaves sufficient to make a Poultrice. This is often used for lulling pain on cancerous sores, &c.

**Arrow-root Poultrice** is recommended by Dr. A. T. Thompson, as a soothing application for irritable sores, &c. Hops, Camomiles, Scraped Carrot and Turnip, and a variety of other substances, are also used for this purpose, but it is doubtful whether they possess any advantages over those more commonly employed.

Poulticing of wounds and abscesses is sometimes carried too far. Up to a certain point it is good; but when the discharge becomes thin and serous, and increases rather than diminishes, and the healing process appeared to stop, it is time to stay this kind of application, and substitute Water Dressing, which often gives a more healthy character to the affected part.

**POURPART'S LIGAMENT.** Sometimes called the *Ligament of Fallopius*. A ligament extending from ileum to the os pubis.

**POWDERS.** This is a very common form of administering medicine, especially to children; it is one in which the peculiar



properties of the various drugs are most easily and expeditiously developed. Powders may be either simple or compound, consisting of one drug, or two, or more. An enumeration of the former would be that of all the dry substances in the *Materia Medica*, for all can be reduced to powder, and all are sometimes so exhibited. The latter are also very numerous; we need only mention the few which are most available for domestic use:—*Aromatic, or Compound Cinnamon Powder* is composed of Cinnamon, 2 ounces; Cardamom Seeds,  $1\frac{1}{2}$  ounces; Ginger, 1 ounce; Long Pepper,  $\frac{1}{2}$  ounce, all finely powdered, and well mixed; this is useful as a stimulant and carminative; dose, 5 to 10 grains. *Compound Aloes Powder*, (see *Aloes*). *Compound Alum Powder*, (see *Alum*). *Compound Antimonial Powder*, (see *Antimony* and *James's Powder*). *Compound Chalk Powder*, given as an astringent and anti-acid in acidity of the stomach and diarrhoea; its composition is Prepared Chalk, 4 ounces; Cinnamon, 2 ounces; Tormentil Root and Gum Acacia, of each  $1\frac{1}{2}$  ounces; and Long Pepper,  $\frac{1}{2}$  an ounce; the dose is from 5 to 30 grains. The same powder with Opium, in the proportion of  $1\frac{1}{2}$  grains to a drachm, is very useful as an absorbent and anodyne for children afflicted with irritative diarrhoea during dentition.

*Powder of Mercury with Chalk*, commonly called *Grey Powder*. (See *Mercury*).

*Compound Ipecacuanha Powder*. (See *Ipecacuanha* and *Dover's Powder*).

*Compound Jalap Powder*. (See *Jalap*).

*Compound Rhubarb Powder*. (See *Gregory's Powder*).

*Compound Scammony Powder*. Strongly cathartic; useful for worms. Composition, Scammony and Jalap, of each 2 ounces; Ginger  $\frac{1}{2}$  an ounce. Dose, 5 to 10 grains, usually with a grain or two of Calomel.

*Compound Tragacanth Powder*. Composed of Tragacanth, Acacia, Starch, and Sugar; useful for administration of Calomel and other heavy powders to children, or to rub down for an emulsion for coughs.

In preparing Powders, it is essential, that all the ingredients should be very finely powdered, and that the incorporation of them be complete; for many of them a metal mortar should be used, as they require much beating and grinding; they should be passed through a sieve of lawn or fine muslin, and care should be taken to protect the nostrils, as the inhaling some of them will cause great irritation of the bronchial passages, as well as of the nostrils and eyes, if not worse consequences. On the whole,

it is, perhaps, best to procure them from a respectable druggist ready made. They should be kept perfectly dry, in well-closed bottles, as some of them, if exposed to the air, will cake and become hard; and others will lose their medicinal properties. Most Powders should be given in some thick substance, such as honey, treacle, or gum, as in a thin fluid they will sink to the bottom before they can be drank. (See *Medicines*).

**PREPUCE** (Latin *præputium*, from *pre* before, and *putio* to cut off). The foreskin of the penis; it is connected with the under part of the glands by a triangular fold termed the *frænum* (bridle) *præputii*. See *Penis*.

**PRACTICE**. We have here to do with this term only in so far as it relates to Medical Practice—the business or profession of the general “practitioner,” as we call one who practices the healing art in all its branches, in contradistinction to the physician, who does not undertake surgical cases, nor attend confinements. This term has superseded that of apothecary, which was, until lately, applied to all medical men who dispensed their own drugs; they being the legitimate successors of the less highly educated chemists and apothecaries, who, as they still do, prepared the physicians’ prescriptions.

That Practice in medicine, as in all other arts and sciences, is better than theory is true, but only to a certain extent; but by itself, that is, unless based upon theory, it is mere guess work. There are plenty of unauthorized medical practitioners, who cannot give a sound reason for their peculiarities of treatment, and are, therefore, as likely to be wrong as right; but theorizers are generally men who have arrived at their conclusions only after a long course of study and accumulation of facts, the result of the labours of others, if not of themselves. The theory of such a man is better than the practice of an ignorant quack, however shrewd and observant he may be. Happily, in the legal Medical practitioners of the present day, we commonly get both extensive and skilful Practice founded upon sound theory, and therefore give them our fullest confidence.

**PRECIPITATION**. (Latin *præceps*, headlong). A falling down; the process of separating solids from the solutions in which they are contained. The substance so separated is called a *Precipitate*, and that employed to produce the effect a *Precipitant*. We might give many examples of alkaline, earthy, and metallic Precipitates which are used medicinally, but it is needless; two of the most familiar are the Red and White

Precipitates, both preparations of *Mercury* (which see).

**PRECOCITY** (Latin *precoctas*, ripe before its time). Premature development of sexual organization, or of mental power, is by no means uncommon; in either case, it is to be deplored, as a sign of disease, which is likely to lead to early decay. Parents are too fond of exhibiting their precocious children, and stimulating, by every means of excitement, their already morbidly-active faculties of thought; this is a great mistake; every effort should be made to counteract such a tendency of the mind to overmaster the body. Particularly clever children seldom attain maturity, and if they do, it has been observed, as a rule, that they make remarkably dull, or sickly men and women. When, therefore, it is noticed that a child is, as it were, preternaturally clever and acute, he should be kept as much as possible from mental study; let him have plenty of bodily exercise to strengthen and develop his frame, and to divert the nervous power from the brain to the body generally.

**PREDISPOSITION** (Latin *pre*, before, and *disposo*, to induce). Previous fitness for any change or impression; such as that of the body for disease; of the seasons to generate sickness. Among the chief Predisposing causes of disease may be named hereditary taint, age, sex; personal peculiarities and temperament; a vitiated condition of the blood: depraved, irregular habits, arising from a depressed state of the mind, from fear, &c. These must not be confounded with the exciting causes of disease, or those which actually produce it; they, as it were, prepare the system for its reception: it is the produce or absence of this Predisposition which constitutes the safety or danger of persons exposed to infections or other forms of sickness; thus, we often see one stricken with fever, while another, placed in precisely the same circumstances, and who appeared equally liable to take it, escapes. This is a subject full of interest, both to the psychologist and physiologist, but we cannot pursue it here. Allusion is made to it under several of our subject-headings, such as *Hereditary*, *Temperament*, &c.

**PREGNANCY.** Utero-gestation, or the period of child-bearing; that is, from the time of conception to that of delivery, extending over 40 weeks, or 280 days. It is commonly set down as 9 calendar months, but this would make only 275 days; or, if February be included, 272 or 273 days, that is, 39 weeks only instead of 40, or, as

Dr. Burn says, 9 calendar months and a week. In making the necessary provision for the coming on of labour, it is best to calculate from midway between the last occurrence of menstruation, and the one which would have followed, if conception had not taken place, and allow 9 calendar months from that time; thus, if menstruation had taken place on the 1st of January, labour might be expected some time about the middle of October.

The chief *signs* of Pregnancy are, 1. The cessation of the menses; although this is by no means an unfailing sign, for sometimes this discharge will cease from other causes, and sometimes it will continue after conception has taken place; 2. Morning sickness, which generally commences about the fourth or fifth week, and lasts to about the fourth month; with some this is but slight, and causes but little inconvenience, but with others, it is more continuous and serious, sometimes causing the rejection of nearly all food for a very considerable period; this symptom, again, cannot be taken as a proof of pregnancy, it is merely a suspicious circumstance, to be watched in connexion with others; 3. Enlargement of the breasts, which generally increase in size about two months after conception; they also become tender and sore, they throb and burn, and when pressed by the hand, have a hard knotty feel, in consequence of the swelling of the glands by which the lacteal fluid is secreted. The nipple, also, becomes more prominent, and increases in diameter, while the areola around it assumes a purplish tinge, and has on it several little raised pimples of a yellowish-white colour; 4. Enlargement of the womb and abdomen, which, in the fourth month, becomes very perceptible; the womb, which may now be felt in a firm rounded body, having ascended above the bone of the pubes, and pushed the bowels up into the abdomen; 5. A tendency to flatulent distention of the stomach, towards evening especially, rendering insupportable a pressure of stays, &c., which in the morning could be easily borne; 6. "Quickeuing," which is the mother's first perception of the second life within her; there is at first, probably, a very slight tremulous motion, like a mere pulsation, this day by day grows stronger, until it becomes quite distinct, often painfully so; it is as though the child, to use a scripture phrase, "leaped in the womb;" these movements can be distinctly felt by the hand placed upon the abdomen. There are other and less obvious signs which only the professional man would be likely to detect; all may notice, however, the change



which generally takes place in the countenance; the mouth and eyes seem to enlarge, and the nose becomes, what is generally termed, more or less pinched up; there is an alteration, too, in the colour of the eyes, which become somewhat paler, especially is this perceptible if they are blue eyes. Then the patient is generally fidgetty, peevish, and restless, exhibiting a high degree of nervous irritation; she has odd fancies, and longings after out-of-the-way things, and articles of diet, which should be procured for her if possible. At such a time she requires soothing and humouring; harsh and unkind treatment will be likely to have a most injurious effect, both upon her and her offspring.

Touching the disorders to which Pregnant women are liable, local and general, we may observe, in addition to those already mentioned above, that a varicose condition of the veins of the legs, is one of the most common; it usually occurs during the latter months of Pregnancy, and arises from the pressure on the trunk veins on the pelvis. This is sometimes very painful and distressing, the veins becoming very dark coloured and swollen, and often permanently varicose, so that an elastic stocking, which is at first put on to afford temporary relief, has to be always worn.

*Constipation* during the latter months of Pregnancy is nearly always present, the pressure upon the lower bowel being the cause. Neither Aloes, nor any violent cathartic should be taken. A moderate dose of Castor Oil may be administered about every other day, or as often as necessary. (See *Constipation*), also *Piles*, which are often very troublesome to Pregnant women.

*Puerperal Convulsions* sometimes occur before delivery as well as after; they may partake of the character of *Apoplexy*, *Epilepsy*, or *Hysteria*, (all of which see.) Sometimes these are so violent as to cause death. (See *Convulsions*).

*Cramp* is also sometimes very violent and troublesome; it is confined to the lower limbs, and occasioned by the pressure of the enlarged womb upon the nerves; there is also often great irritability of the bladder, and violent headache.

Of *Abortion* and *Miscarriage* we have already treated under those heads. For an account of the affections to which women are especially subject after delivery (see *Breast*, *Lying-in*, *Milk*, *Parturition*), &c.

It will be well, perhaps, before quitting this subject, to lay down a few simple rules for general management during Pregnancy; and, for special treatment of the affections

which are likely then to occur. Montgomery says that "A Pregnant woman should be made aware that the advantages obtained by well-regulated habits are by no means exclusively conferred on her, but that others equally important are likewise conferred on the child, for whom a larger supply of nutrition, and of a better quality, will thus be provided; and so, being nourished by sound and healthy fluids, will commence its career of life strong, vigorous, and less liable to those morbid debilities and derangements which affect the children of the indolent, the pampered, or the debauched." The mother in expectancy should bear this in mind, and, not only for her own sake, but for that of the being in embryo, on whose future health and destiny she will exercise so great an influence, let her avoid all unnecessary causes of excitement, all undue fatigue and exposure to weather; let her lead a quiet, regular life; take good nourishing diet, but not rich and luxurious: it is a mistake to suppose that more food is required during pregnancy than at any other time; the stomach then partakes of the irritability of the whole system, and to overload it, as is frequently done, is sure to increase, if it does not cause, the sickness to which we have alluded as one of the symptoms of Pregnancy. Therefore, let the eating and drinking be moderate, and let moderation, too, be the rule in all the pleasures and enjoyments of the senses. No woman who is *encreinte*, as the French term it, should, if she can possibly avoid it, witness a scene of deep distress, or acute suffering; or read or listen to any fearful and harrowing recital; her nervous system is in a state of extreme impressibility, and neither the feelings nor the imagination should be unnecessarily excited; if they are, the mind is likely at such a time to lose its balance, or a prejudicial effect may be produced on the child yet unborn. Neither should a Pregnant woman expose herself to contact with infectious diseases, even though they be such as she is not likely to take herself, for the infant in the womb may suffer from them; instances are on record of children born with small-pox. Frightful and disgusting objects, too, should be avoided, as they will be likely to excite fears of deformity in the child. For the sickness and vomiting before alluded to, it is well to take an effervescent draught every four hours or so, with perhaps  $\frac{1}{2}$  a drop of Hydrocyanic Acid in each. The patient should have breakfast in bed, and remain in a recumbent position for some time after. Small lumps of ice put into the mouth, and allowed

to dissolve, will sometimes afford relief. If there is pain at the pit of the stomach, 2 or 3 Leeches, or a Blister, may be applied; if found serviceable, this may be repeated at intervals. Should the stomach reject all food, nutritive enemata of broth, or yolk of egg and milk, may serve to keep up the strength for a time.

For the costiveness which is common at this time we have already recommended Castor Oil as the very best aperient; but if the stomach nauseates at repeated doses of this, a mixture of Sulphate of Magnesia, 1 ounce, dissolved in Infusion of Roses, 6 ounces, with 2 ounces of Cinnamon Water, may be tried, a wineglassful every morning early. If, as is sometimes the case, diarrhoea supervenes, give Chalk Mixture 6 ounces, with Aromatic Confection 2 drachms, and Tincture of Opium  $\frac{1}{2}$  a drachm, a table-spoonful every three or four hours. The frequent desire to make water, arising from irritation of the bladder, should be attended to, as long retention of urine may cause retroversion of the womb, and abortion: an abdominal belt will be found of great service in the renal affections of Pregnancy. Effervescing draughts, with 10 grains of Nitrate of Potash, and the same of Magnesia, will also be found serviceable; and if there is much pain, add 5 minims of Laudanum, and apply hot fomentations, or use the hip-bath. If there is cough, which frequently attends Pregnancy, give any soothing pectoral mixture, or the pills recommended under the head *Cough*.

If the cough is attended with pains in the chest, or headache, apply in the former case Mustard Poultices over the sternum, or Leeches, if the patient is of a full habit. For cramps and pains in the legs, with swelling and varicose veins, sponge the legs with cold Vinegar and Water, and put on roller bandages, or elastic stockings. Itching about the vagina, with gleet discharges, call for the use of the hip-bath, and a slightly astringent injection, such as Goulard Water, a weak solution of Alum, or an infusion of Green Tea. For heartburn, Carbonate of Potash and Magnesia, of each 10 grains, in Cinnamon Water, with 1 drachm of Tincture of Gentian. For dreams and restless nights, Extract of Hemlock, or Henbane, 5 grains, at bed-time, with strict attention to the condition of the bowels. Of convulsions we have already spoken. When these are frequent, and accompanied with giddiness and a sense of confusion, active depletory measures are called for, should the habit of the patient warrant this. Despondency frequently seizes upon those who are about

to become mothers; but generally, if the health be pretty good, it is shaken off as the great trial approaches. There are some women who are never so well and cheerful as during the time of Pregnancy, but many there are to whom it is indeed a period of trial and suffering; and especially is this the case with those who are about to become mothers for the first time.

It is necessary to the completeness of our subject that we say a few words here about False or Spurious Pregnancy. "A condition of the female system," says Montgomery, "of a remarkable kind, most frequently observed about the turn of life, when the catamenia becoming irregular, previous to their final cessation, are suppressed for a few periods, and at the same time the stomach being out of order, nausea or vomiting is experienced, the breasts enlarge, become sensible, or even slightly painful, and sometimes a serous or acrolactescent fluid exudes from the nipples and orifices of the areolar tubercles; the abdomen grows fuller and more prominent, especially in women of full habit, and constitutionally disposed to *embonpoint*, and the abdominal enlargement progressively increases, partly from deposition of fat in the integuments and in the omentum, but still more from distention of the intestines by flatus, which, passing from one part to another, communicates a sensation like that produced by the motion of a foetus; the nervous system is generally much disturbed, and the woman feels convinced that she is Pregnant, an idea which, at the time of life alluded to, is cherished by the sex with an extraordinary devotion, and relinquished with proportionate reluctance, and not unfrequently at the end of the supposed gestation, the delusion is rendered complete, and almost assumes the character of a reality, by the occurrence of periodical pains strongly resembling labour."

PRÆCORDIA (Latin *præ*, before, and *cordia*, the heart). The front part of the region of the thorax, or chest.

PREMATURE BIRTH. One which occurs between the 7th and 9th month of Pregnancy is generally so called; it is a contingency to be most carefully guarded against, for a child born before its regular time can scarcely be expected to have the strength and vigour of one who attains its full development in the womb. Nevertheless, cases have been known in which the early-born child has grown up hearty and strong, and there are also cases in which, for the mother's sake, a premature labour is desirable, as giving the only possible chance.



of producing living offspring at all. There may be an unusually small pelvic cavity, owing to some malformation, or a narrowing of the passage through which the fetus has to pass, so that it can only do so by an operation, involving death to the child and great danger to the mother. Of course, none but a surgeon should be entrusted with the delicate task of bringing about a premature labour, and only such a sad necessity as is here hinted at should authorize him to attempt it.

**PRESENYOPIA** (Greek *presbys*, old, and *ops*, the eye). That is far-sightedness; a state of the eye sometimes observed in those of advanced age. It is the opposite of *Myopia* (which see).

**PRESCRIPTION** (Latin *prescribo*, to write before). The medical formula which the physician writes, when he has seen his patient, for the guidance of the apothecary who prepares the medicines, and labels them with the proper directions; it is written in Latin, and the words are much abbreviated, in some cases a single letter standing for a word: thus, *p. r. n.* for *pro re nata*, meaning, according to the occasion, or, as it is shortly translated, when required. A true man of science will compose his Prescription according to philosophical principles; there will be, 1st, the *Basis*, or chief acting ingredient; 2nd, the *Adjuvans*, that which assists and promotes its operation; 3rd, the *Corrigens*, that which regulates and corrects it; 4th, the *Constituens*, that which gives an agreeable colour or flavour; the objects to be kept in view being to enable the basis to operate *quickly, safely, and pleasantly*, or, as the learned would say, *cito, tuto, et jœundè*.

The advantage of writing Prescriptions in Latin, has been much questioned; but to those who are best able to judge, this appears to be the better course: it is often very undesirable that patients should be made aware of the exact nature of the drugs which they are taking, as the strongest poisons, given under certain circumstances, and with proper safeguards, have often the most beneficial action on a disease:—indeed, they are sometimes the physician's only resource; and nervous people, unaware of the principles on which their administration is based, would be frightened at the idea of taking them. Then again, Latin is the universal language of science, and a Prescription written in this language, would be understood by all scientific men; a manifest advantage this, which becomes more and more apparent, as the great principles of medical treatment became simplified, and rendered

general. The Prescriptions of former days were very complicated affairs, judging by which we should imagine, that in very many cases, the prescribers could not make up their minds as to the proper course of treatment, and, therefore, threw in a great many drugs, in the hope that one or other of them would touch the disease; this hap-hazard mode of prescribing is now happily discarded, and our Prescriptions are generally plain and simple, containing but a few ingredients, and if written in a dead language it is not with a view to mystify and delude people. Our doctors, now-a-days, are not alchemists, and jugglers, and mountebanks, as ignorant of true science as the Indian "medicine-man," although we still have amongst us quacks in plenty, who vend mysterious compounds, good for every disease under the sun, and suitable for all ages and constitutions. The physician who would practise successfully among any other than the lowest and most ignorant classes, must be a highly-educated and enlightened man, who proceeds on strictly scientific principles, and can give a reason for all that he does. It is sometimes thought that the fee expected by such, for a consultation and a few lines of writing merely, is most exorbitant; but the long and laborious study required to fit a man for giving medical advice which is really worth having, should be taken into consideration; the life-long devotion to the great object of alleviating pain and curing disease; the social position necessary to be maintained, and the harass of mind to which a really conscientious physician must be subjected. High medical skill and experience cannot be purchased like salts and senna, at so much per ounce; nor a carefully considered Prescription, like a mere manuscript copy of some printed form, which is patent to all; therefore we say to our readers, grudge not the physician's fee, but pay it readily, with the full assurance, in most cases, that you get the worth of your money.

**PRESERVED PROVISIONS.** The preparation of articles of nutriment, in a concentrated form, has of late been carried to great perfection; the knowledge that all our solid food is composed, to a great extent, of watery particles, and that this partial fluidity is the great cause of their rapid decomposition, naturally leads to the inference that if this water could be got rid of by compression, or otherwise, we might obtain a large amount of nutriment in a very small compass, and in a condition likely to keep good for a long time. This reasonable deduction is borne out by the fact, that by

means chiefly of dessication and compression, portable animal and vegetable food can be, and is produced, calculated to retain its nutritive properties, and characteristic flavour for years, and under varying climatic influences; the necessity of its remaining unchanged, being its exclusion from the air; this is best effected by means of sealed canisters, in which Preserved meats are generally sold: of course, we do not recommend Preserved Provisions in preference to fresh, which are always best; but we say to our readers who are going on a sea voyage, or into situations where food in a fresh state is not easily procurable, take as much of the former as your means and opportunities will allow. Preserved meat, if properly prepared, is very superior to salted meat; for, as Liebig has shown, much of the albumen of flesh is dissolved in the brine, and, therefore, in the process of salting, its composition is changed, and it is rendered less nutritious. Beside which, "A change in the gastric juice, and, consequent on that, of the products of the digestive process, must be regarded as an inevitable result of the long continued use of salted meat; and if during digestion the substances necessary to the transformation of this species of food be taken from other parts of the organism, these parts must lose their normal condition."

We can now obtain Extract of Beef, which is said to contain in 1 ounce the nutriment of a pound of the fresh meat. *Pemican* is the muscular fibre of Beef dried and reduced to a coarse powder; travellers speak highly of its value as an article of diet; as do chemists of the Patent Meat Biscuit, a preparation of concentrated meat and bread, one pound of which contains the nutriment of five pounds of beef, and which can be made into soup in a very short time. This and Pemican possess the advantage of keeping good even when exposed to the air. In a cubic foot of M. Massin's compressed vegetables, we are offered as much as would furnish rations for 10,000 men. When immersed in water for some time, they will "swell up, become soft and tender, and resume to a great extent, the appearance, colour, and flavour proper to them in a fresh state. Of the value of Preserved Fruits our readers are fully aware. Of the methods of preservation, it is rather for the cook and housewife than the *Family Doctor* to speak. He can but recommend them as generally wholesome, as far as the fruits themselves are so, and very useful; at least those preserved in sugar as jams and jellies, in the administration of medicines, and as

condiments, which, however, should be sparingly used, for those who have delicate appetites, and require temptations to make them eat.

PRESSURE as a curative agent has always been recognized as of considerable importance; it has been, and is, applied in cases of *Fracture* and *Dislocation* (which see), also in various distortions and inflammations to which the human frame is liable, such as those of the *Spine* and *Foot* (which see). We have a striking evidence, in the flattening of the skull of the Carib, and some other barbarous tribes, of the effect of continued Pressure on the growth of one of the hardest and most unyielding portions of the body, viz., the cranium; and our everyday surgical experience proves to us how crooked bones may become straight, and *vice versa*, if we only apply Pressure at the proper time, in the proper way, and keep up its application sufficiently long. In cases of tumours, and some other swellings, we resort to this agent with marked success; we apply it to stop the bleeding of a vein or artery; to close a wound, or keep in its place some internal organ, until nature shall have repaired an injury or remedied a defect, and so rendered it no longer necessary. What should we do in cases of hernia and prolapsus without Pressure—which has recently been recognized as one of the safest and most effectual applications in aneurism. Pressure—that of the atmosphere—is upon and around us wherever we go; by its equality on all sides, we are sustained and supported; by its resistance within to the opposing force without, we are preserved from being crushed, and collapsed like a wind-bag. We are sensible of the various atmospheric changes by the greater or less degree of Pressure which the air exerts upon us, and but for it we should fly off into space, and be altogether unable to guide our movements.

Then, too, Pressure is a cause of disease, as well as a curative agent: witness the white swelling, or Housemaid's knee; the sores and sloughing ulcers of the poor bedridden patient; the troublesome corns and bunions of foolish people, who will persist in thrusting their feet into shoes too small for them. And above all, witness the short breath, hysterical and other symptoms, of the genteel young lady, who makes a human wasp of herself, in more senses than one: for ill-health sours the temper, as surely as the undue compression, of a part of the body containing the organs whose free action is most essential to life, destroys the health. Scarcely would our remarks on



that of ears and adverse circumstances upon the mind, frequently leading to disease of those organs by which the mind chiefly acts, and, as a consequence, producing mental derangement, and often, by sympathetic action, bodily disease also. By brooding too much upon our troubles, this Pressure is perpetuated and intensified, and efforts should be made to obtain at least occasional relief by such innocent pleasures and recreations as are available. Thus the elasticity of the mind is restored, and it is enabled to struggle, with a better chance of success, against the incubus which oppresses it.

We should not leave this subject without a solemn warning to mothers as to the injurious effect of undue Pressure upon the young; tight stays, tight shoes, tight every thing, should be avoided, even tight discipline. Let the feelings, as well as the limbs, have free play, and we shall have less morbid growths, and diseases, both mental and physical.

**PRIME VIE** (Latin, plural of chief way). Applied to the first passages of the stomach and intestinal tubes, as distinguished from the *secunda via*, or second passages.

**PROBANG**. A long slender piece of whalebone, with a sponge at the end, used for passing into the œsophagus, for the purpose of examination, or removing any obstructions. For cut of this instrument, see p. 340, Vol. I., *Gullet*.

**PROBE** (Latin *probo*, to try). An instrument by which the depth and extent of wounds are tried; it has a blunt end, and is best made of silver. By means of a Probe the surgeon ascertains the extent of destruction of tissue in an abscess, and how deep he must cut to make a free opening for the escape of matter. Some Probes have a groove, or channel, as a guide for the operating knife. The Probe, in unskilful hands, may cause much mischief, irritating and inflaming tender parts; it should therefore be left for the professional man to use.

**PROCESS** (Latin *procedo*, to issue forth). The eminence of a bone, or the thick part, from which the shaft issues, is so called: thus, in the leg we have the spinous Process of the tibia, and in the arm the olecranon and coronoid Processes of the ulna.

**PROCIDENTIA** (Latin *pro* before, and *cedo* to fall). The falling of any part, as the anus, uterus, &c. See *Prolapsus*.

**PROFLUVIA** (Latin *profluvio*, to flow down). The name given by Cullen, in his Nosology, to an order of *Pyrexia* (which see).

**PROGNOSIS** (Greek for foreknowing). The

faculty of foreseeing and predicting what will take place in the course of a disease; the art of discerning present symptoms, and from thence deducing the character of disease, is *Diagnosis* (which see).

**PROLAPSUS** (Latin *pro labor* to fall forward) signifies the same as *Procidentia* (see above). *Prolapsus ani* and *uteri* (of the anus and the womb) are by no means uncommon affections in females, especially who have borne children, and had difficult labours. Cold astringent lotions, and the use of the Pessary are among the remedial means to be adopted. See *Anus*, *Pessary*, *Womb*.

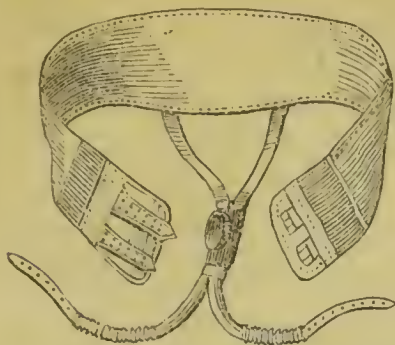
Prolapsus of the lower gut at the fundament most frequently occurs with children and aged persons, although it does occur at all ages, and commonly in connection with *Piles* (which see); irritation from worms or stone in the bladder, or much straining at motions of the bowels, will also occasion it. The gut may generally be returned without difficulty by means of gentle pressure with the fingers, covered with a piece of greased rag. If allowed to remain down long, it will become swollen, with congested blood, and will require the aid of a surgeon, who should always be consulted if this Prolapsus becomes habitual, in order that the cause of it may be investigated, and if possible removed. Children so effected should have their bowels kept in a lax state with gentle aperients, and they should not be suffered to remain long on the stool; the loins should also be bathed with cold water, and an enema, consisting of a grain of Sulphate of Iron, dissolved in an ounce of Rain Water, should be thrown into the bowels after each motion.

For this kind of Prolapsus, whether in children or grown persons, a Pessary is seldom necessary, but a bandage like this may be used with advantage:—Here we have a centre piece, tolerably broad, to which is attached an oval pad of some smooth hard material; a back-strap passes up, and fastens to a belt round the body; and another strap, in two divisions goes up the front, and also fastens to the belt. This, if properly managed, will exert all the pressure necessary to keep the gut from protruding. The following is a more complicated and expensive, as it is also a more useful instrument of the kind.



The broad belt serving as an abdominal supporter: it is applicable to all cases of Pro-

lapis Ani, whether it proceeds from Piles or any other cause.



**PROMONTORIUM.** Latin for a promontory. Applied to an eminence of the internal ear, formed by the outer side of the vestibule, and by the corresponding scala of the cochlea. See *Ear*.

**PRONATOR** (Latin *pronus*, bending forward). The name of two muscles called *P. teres* and *P. quadratus*, the first of which arises from the inner condyle of the humerus, and the coronoid process of the ulna, and is inserted into the middle of the radius; and the second arises from the edge of the ulna, and is inserted into the edge of the radius: these muscles turn the radius and the arm inward. See *Fore Arm*.

**PRONATUS** (Latin *pronus*, bending downward). The act of turning the palm of the hand downwards, by rotating the radius upon the ulna by means of the pronator muscles.

**PROOF SPIRIT.** Spirit of Wine, which has been tested, and found to be of the proper strength. See *Alcohol, Spirit*.

**PROPHYLACTIC.** Greek *pro*, before, and *phyllasso*, to guard). Any means employed for the preservation of health; but more especially a medicine which is intended to act as a preventive to, or a defence against, disease.

**PROPOLIS** (Greek *pro*, before, and *polis*, a city). A reddish odoriferous substance, gathered by bees, the vapour of which has been used in asthma, &c.

**PROSTRATE** (Latin *pro*, before, and *sto*, to stand). A gland situated before the *vesicula seminalis*; it is about the size and shape of a chestnut, and surrounds the neck of the male bladder; in young men it is liable to become the seat of serofulous inflammation, and in old, of chronic enlargement; the symptoms of both these forms of disease are too obscure to admit of domestic treatment.

*Prostrate Concretions, or Calculi of the*

*Prostrate Gland, are, as Dr. Williams has shown, chiefly Phosphate of Lime, distinctly stratified, and tinged by the secretion of the gland. See Calculi.*

**PROTEIN** (Greek *proteyo*, to take a first place). A name given to the supposed base of the animal principles, albumen, fibrin, and casein, from which, according to Liebig, all the organic nitrogenized constituents of the body are derived. This substance is in the form of a yellowish brittle mass, insoluble in water and alcohol, and has been obtained from both animal and vegetable albumen; it is said to be composed of carbon, hydrogen, nitrogen, and oxygen; it does not occur in nature in the state of Protein, and some chemists have doubted of its existence at all.

**PRORO** (is from the Greek *protos*, the first). It denotes the manner in which one body unites with another, as *Per* denotes the highest degree.

**PROTRACTOR.** (Latin *protraho*, to draw forward). An instrument for drawing extraneous bodies out of a wound.

**PROTRUSION** (Latin *pro*, and *trudo*, to thrust). The act of thrusting forward or driving beyond the usual limit; thus various parts of the body may be protruded either by natural or artificial openings. See *Pro-lapsus, Rupture, &c.*

**PROUD FLESH.** A name applied to the red granulations which often appear on the surface of wounds and ulcers; if they do not rise above the level of the skin, these granulations are of a healthy character, being part of the process by which nature is replacing the lost material, and filling up the void which its loss has occasioned; it is manifestly, therefore, unwise to interfere with them; but if they do rise above the level of the skin, they are most likely of a fungous character, and their destruction should be attempted by means of a caustic application; it may be the Nitrate of Silver itself; or Sulphate of Copper (Blue Stone); a few grains of Red Precipitate, or a little powdered Lump Sugar; the first-named of the above is the most effectual, but care should be taken, in applying it, only to touch the spots themselves. See *Abscesses, Ulcers, Wounds*.

**PROXIMATE CAUSE.** We call by this name the more immediate traceable cause of any disease, such as the eruption of acrid bile in excess into the stomach and bowels. The *Remote Cause* is that which gives origin to this superabundance of bile.

**PRUNES.** The dried fruit of the plum or *Prunus Domestica*, of the natural order *Rosaceæ*; they are laxative and nutritious.



dict in cases of costiveness, especially for the convalescent from fevers and inflammatory diseases. They impart their laxative



properties to water, and are a pleasant and useful addition to purgative infusions and decoctions. If eaten too largely by those whose digestive organs are not very good, they are likely to cause much pain and griping.

**PRURIGO** (Latin *prurio*, to itch). A papulous affection of the skin, attended with troublesome itching. Bateman divided it into four species—viz.: 1st, *P. formicans* (Latin *formica*, an ant), which is attended with a sensation as of ants or other insects creeping over and stinging the skin, or of hot needles piercing it; 2nd, *P. mitis*; 3rd, *P. senilis*; 4th, *P. sine papulus*—Mild, Inveterate, and Local Prurigo; the last being divided into several varieties, according to the parts which are affected. This disease, although not dangerous, is a cause of great discomfort, and sometimes even misery; it attacks persons of all ages, and is not easily got rid of, sometimes lasting for months, and even years. See *Skin Disease*.

**PRUSSIATES**. The former name of the *Ferro-cyanites*, or salts of the Ferro-cyanic acid. The Prussian Blue, so useful in the fine arts, is a Ferro-cyanite of the Per-oxide of Iron.

**PRUSSIC ACID**. An acid discovered by Scheele, and so called from being an ingredient in the Prussian Blue; it is now generally called *Hydrocyanic Acid* (which see, and *Acids*.)

**PSALTERIUM**. (Greek *psalto*, to play upon the harp). Applied to a part of the brain consisting of lines like harp-strings impressed upon the under surfaces of the posterior part of the body of the *Brain* (which see).

**PSELLISMUS** (Greek *psellys*, stammering). Miscunciation, or inaccurate articulation. See *Stammering*.

**PSEUDO-BLEPSIS** (Greek *pseudos*, false, and *blepo*, to see). False or deformed sight; defective vision, causing the appearance of imaginary objects. See *Sight*.

**PSEUDO-SYPHILIS** (Greek *pseudo*, and *sypphilis*, venereal disease). A name applied to a form of disease, in which the symptoms are very similar to those of syphilis, although there is no venereal taint in the case.

**PSOAS** (Greek *psoi*, the loins). From this root we have the names given to two muscles of the loins—viz., *P. magnus* and *P. parvus*, the first of which moves the thigh forward, and the second bends the spine upon the pelvis.

A *Psoral Abscess* is one which originates in the loins; it is of a scrofulous nature, and arises from inflammation of the spinal bones, or of the cellular membrane; it generally runs deep, the matter passing downwards behind the abdomen, and showing itself in the groin as a fluctuating tumour. See *Lumbar Abscess*, and *Spine*.

**PSORA**, Greek for the *Itch* (which see). From the same root we get

**PSORIASIS**. A skin disease, of the order *Squamae*, sometimes called Dry Scall, or Scaly Tetter; it consists of patches of dry amorphous scales, continuous, or of intermediate outline, often resembling what is popularly called a chapped skin. According to Bateman, there are five species of this disease, viz., *P. guttata*, *P. diffusa*, *P. gyrata*, *P. inveterata*, and *P. localis*—Minute, Spreading, Gyrated, Inveterate, and Local Dry Scall; of the latter there are several varieties, named according to the parts affected. See *Skin Disease*.

**PSOROPHTHALMIA** is inflammation of the eyelids with ulcerations; sometimes called *Tinea*, or *Itch of the Eyelids*.

**PSYCHOTRIA**. The name of a genus of plants, the roots of some of which, as *P. Emetica* and *P. Herbacea*, are used as substitutes for *Ipecacuanha*; they belong to the natural order *Rubiaceae*.

**PSYDRACIUM**. (Greek, *psydrakia*, signifying cold). A small pustule, often irregularly circumscribed, producing but a slight elevation of the cuticle, and termi-

nating in a lamellated scab. Compare *Phlyzaciūm*. See *Skin Diseases*.

**PTEROCARPUS.** (Greek *pteros*, a wing.) The name of a genus of plants of the order of *Leguminosæ*, some species of which are medicinal; among them are *P. Erinaceu* and *P. Draco*, the former producing *Kino* and the latter *Gum Dragon* (both of which see.)

**PTERYGIUM** (Greek, *pteros*). A thickened state of the conjunctiva, probably so called from its triangular shape; its varieties are *P. tenue*, *P. crassum*, and *P. pingue*—Thin, Thick, and Fatty Pterygeum.

**PTERYGOIDEUS** (Greek *pteros* and *eidos*, likeness). Like a wing; a name given to a process of the sphenoid bone. Hence we have *P. internus* and *P. externus*, two muscles which move the jaw from side to side, and perform the action of grinding with the teeth. See *Jaw*.

**PTERYGO-STAPHYLINI** (Greek. *pteros* and *staphyle*, a bunch of grapes). The name of a cluster of muscles arising from the pterygoid process of the sphenoid bone, and inserted into the uvula.

**PTILOSI.** (Greek for the moulting of birds). Applied to the loss of the eyelashes.

**PTISAN** (Greek *ptisso*, to pound or peel). This term has been applied to decoctions of pearl-barley, or barley-broth, in relation to the process of grinding in a mill which the grain previously undergoes. (See *Barley*, *Gruel*.) Ptisan Drinks are mentioned by ancient writers; thus Horace speaks of *Ptisancrum Oryzæ*, or Ptisan Drink of Rice. We now apply the term to any vegetable infusion, or decoction, of a mucilaginous character, which may be drunk freely by the sick. In the medical practice of France, Ptisans are much more extensively used than they are with us. See *Demulcents*.

**PTOSIS.** (Greek for *prolapsus*). A falling of the upper eyelid, with a partial or complete want of power to elevate it. Beer terms it *Atonic palpebrarum*.

**PTYALISM** (Greek *ptyo*, to spit). Salivation, leading to an involuntary flow of saliva. This is an effect produced on the salivary glands by mercury, iodine, and some other substances, by which the flow of saliva is greatly increased in quantity, and rendered more glutinous in quality. The Ptyalism of mercury is the most marked in its character and symptoms, the chief of which are enlargement of the glands to such an extent that it is frequently very painful to open the mouth; the mucous membrane of the throat is much inflamed, and there is

often ulceration to a great extent. One of the symptoms is the peculiar odour of the breath (see *Salivation*): medicines that cause which are termed *Ptyalogues*.

**PUBERTY** (Latin *pubis*, covered with hair). The age at which, in man, the chin generally begins to show symptoms of growing hair. It is the vigour of youth, the stage or epoch of life between childhood and man or womanhood. In the male, Puberty is entered on about the fourteenth year, in the female two years later; but this varies considerably according to climate and constitution. This is a critical period in the health of every individual; one in which the changes and excitements undergone will be likely to call into activity any latent tendencies to disease there may be in the system. The health of young people should therefore at this time be carefully watched, and all suspicious symptoms investigated.

From *pubes* comes also the term *Pubis os*, the Pubic or share bone, a part of the *os innominata*. See *Pelvis*.

**PUDENDUM** (Latin *pudor*, shame), plural *pudenda*. The parts of generation in the female. Hence also the term *Pudic*, applied to a branch of the sciatic nerve.

**PUDDINGS** when properly made of some farinaceous material, well and carefully cooked, are good articles of diet for invalids: no greasy ingredient should be admitted, nor must the sauce of any be of a fatty nature like butter. Simple Rice, Sago, Tapioca, and boiled Bread Puddings, are those best suited for the sick room, or a composition of light egg and flour. To make them very nutritious, and at the same time light, it is best first to bake or boil the farinaceous ingredient thoroughly in milk, and while it is hot to stir in the egg, previously beaten up with a little warm milk; then set aside to cool; the egg is thus sufficiently cooked, without having its albumen hardened, and rendered indigestible. Scarcely is it necessary for us to give receipts for invalid Puddings, the thrifty housewife will have them at her fingers' ends, and if not, "the Wife's Own Book of Cookery," or some other cheap manual of the kind, will furnish her with plenty.

**PURPERAL FEVER** (Latin *puer* a boy, and *pario* to bring forth). This is one of the most fatal diseases which attack lying-in women; it is a fever of a very high character, arising from inflammation of the serous membrane, and often of the womb itself, and of its veins and absorbents; it runs a very rapid course, and is commonly fatal. It assumes the character of an epidemic, and frequently causes great mortality



in lying-in hospitals; whether it is really contagious or not is yet an open question. The circumstance that it has been known in several instances to attack the patients of one medical man, while all others in the locality have remained free, seems to favour the impression that it is. The mere probability that it may be so should render persons extremely cautious in their intercourse with those who are suffering under it. This is sometimes called *Puerperal Peritonitis*, because the peritoneum appears to be its chief seat; great tenderness of the abdomen, with fulness and tension, is one of its most constant and characteristic symptoms; there is also usually an anxious countenance, sickness, hurried respiration, a furred tongue, and a stoppage of the secretions, especially of the milk. When these symptoms occur soon after childbirth, no attempt should be made at domestic treatment; let the medical man be summoned immediately, if he be not in attendance. If the patient is able to bear it, he will probably bleed and leech pretty freely, and give a full dose of Calomel, followed by Castor Oil, and employ other depletive measures, to reduce the inflammatory action; this active treatment will be followed up with Calomel and Opium in grain doses, should the pain and inflammatory symptoms continue. It is often difficult to distinguish between this fever and true peritonitis, and only one skilled in the diagnosis of disease would be likely to treat it properly.

Of *Puerperal Convulsions* we have already spoken, under the head of *Pregnancy*; they sometimes come on after labour has commenced, or immediately on its completion; and, therefore, while the patient is in a state of great suffering and prostration; the hysterical form is most easily dealt with, merely dash a little Cold Water in the face, and give a teaspoonful of Sal Volatile in Water, as in common *Hysteria* (which see). The epileptic and apoplectic forms are both extremely dangerous; blood will have to be taken either from the arm or the temporal artery, and strong Mercurial Purgatives administered; the hair must be cut short, and a blister applied to the nape of the neck, and cold lotions to the head; if by these means the convulsions can be subdued; and the delivery, if it has not taken place, be accomplished, there may be a chance for the patient. Care must be taken in the apoplectic form not to give Opium, which will probably be required in the epileptic. Generally, however, a medical man will be present at such a crisis, if not, let him be summoned instantly.

*Puerperal Mania* seldom requires depletion by blood-letting from the arm; but leeches should be applied to the temples, blisters to the back of the neck, and cold lotions to the head, from which the hair should be cut off short: Mercurial Purgatives, as above directed, will be proper in this case.

**PUGILLUS** (Latin dim of *pugnis*, a fist). Sometimes put in prescriptions for a little handful, or the eighth part of a handful, about the quantity that can be held at a gripe between the finger and thumb.

**PULEGIUM**, Latin for *Pennyroyal* (which see). The North Americans much esteem, a plant whose scientific name is *Hedeoma Pulegioides*, as an emmenagogue.

**PULMONARY** (Latin *pulmonis*, the lungs). Disease whose seat or origin is the Lungs, as *Pulmonary apoplexy*, *P. consumption*, &c.: particulars of these forms of disease will be found under their respective heads (see also *Lungs*). The aqueous vapour which escapes in breathing, is called *Pulmonary transpiration*.

**PULSE** (Latin *pulsus*, a stroke). The stroke or beat of an artery, called by the Greeks *sphalmos*. This is simultaneous, or nearly so, with the contraction which takes place when the heart pours out a wave of blood through the arteries, the character of the pulsation being greatly influenced by the elasticity and muscular properties of these tubes. As the heart is the great central organ of circulation, and sympathizes with all the changes which take place in the system at large, it follows that the Pulse must be an important guide to those whose investigations are directed to the discovery of the ailments which cause functional and other derangements. But the information afforded by the beating of the Pulse is only trustworthy when it is carefully considered and weighed in connection with modifying circumstances. One ignorant of these, might as well consult an oracle whose response to his questions is couched in unknown and enigmatical words, as the Pulse. It follows, then, that a large amount of practical experience in the treatment of disease is necessary to the proper understanding of this indicator of the state of the system; the matter would be very simple if the mere frequency of the beats was an unvarying indication of this; but, in many cases, this is of far less importance to the medical man, than what he terms the rhythm, or tone. It may be full, bounding, or jerking; soft, wiry, or compressible; feeble, remittent, or intermittent; and all these in a greater or less degree.

True it is that, as a general rule, where there is a full bounding Pulse, measures of depletion may be safely adopted; where there is a thin and feeble one, these would not be safe. This is about as far as the non-professional inquirer may venture; it is well, however, for all persons who hold responsible situations, as heads of families, clergymen in country parishes, and especially such as are likely to go into partially settled countries, where medical advice may be difficult of attainment, to make themselves as well acquainted as they can with the language, so to speak, of the Pulse, which at all times may be easily felt by the fore and middle fingers, pressed slightly on the upper and inner side of the wrist, about an inch above the lower joint of the thumb, where the pulsating artery lies, guarded by the strong tendon of the fore arm (see *Artery*). The beats may there be distinctly counted, and a little practice will render the detection of any irregularity, or difference of force easy. With a healthy man in the prime of life, there will be about 72 beats in the minute, that is, supposing him to be quiet, and unexcited. Any great bodily exertion, or mental emotion, will render the Pulse more rapid. With children, where there is great activity both of body and mind, the arterial action will be accelerated. We give the above as a general average; with some persons the beats rise to 90 in a minute, and even more, and with others they sink to 40; and these variations are quite compatible with good health. Age has a great influence in the frequency of the Pulse. M. Quetelet gives the following as a scale of averages:—At birth, 136 per minute; at 5 years old, 88; at from 10 to 15 years, 78; at from 15 to 25 years, 69; at from 25 to 30 years, 71; at from 30 to 56 years, 70. We should have liked the investigation to have been carried further into the vale of years, as we fancy it would have tended to disprove a popular belief that the Pulse of aged persons is slower than that of the young; our experience does not confirm this.

**PUNCTUM** (Latin *pungo*, to prick). A point; hence *Puncta lachrymalis*, the external commencements of the lachrymal ducts, which terminate in the lachrymal sac.

**PUPIL** (Latin *pupilla*, dim. of *pupa*, a puppet). The round aperture of the iris of the *Eye* (which see).

**PURGATIVES** (Latin *purgo*, to cleanse). Active cathartics; substances which excite and accelerate the muscular movements of the alimentary canal, and increase the dis-

charge therefrom. Medicines of this class, which we often call *Aperients*, or *Cathartics* (which see), may be classed according to their action; thus they may be mildly *Laxative*, as Almond, or Olive Oil, Manna, Magnesia, &c.; *Purgative*, as Aloes, Castor Oil, Epsom and Glauber's Salts, Jalap, Rhubarb, Rochelle Salt, and Senna; and the mercurials, Blue Pill, Calomel, and Grey Powder; or *Cathartic*, or *Drastic*, as Colocynth, Scammony, &c.

Purgatives are the most commonly used, as they are undoubtedly the most serviceable, of any class of medicines; they not only clear the bowels of their contents, and so relieve that part of the system, but they are important agents in the relief of the organs closely connected with the bowels, such as the Liver, and also of the more distant parts, as well as the system generally; thus, how often do we find that a severe headache passes off under the influence of an active Purgative; and that many other painful and distressing symptoms are greatly mitigated, if not altogether subdued, by the like influence. Yet Purgatives, like all good things, are often abused; if taken too frequently and indiscriminately, they do much mischief, by weakening, instead of aiding, the digestive powers.

**PURGING FLAX.** The *Linum Catharticum* of botanists. For an account of properties, &c., and a cut of the plant, (see *Linseed*.)

**PURL.** A beverage made by the infusion of Absinthe, or common Wormwood, in Ale; it is a good tonic. See *Wormwood*.

**PURPURA** (Greek *porphyra*, purple). Literally, the Purple or Livid disease. An eruption of small distinct specks and patches of a dark blue or livid colour, caused by the escape of the blood from the smaller or capillary vessels, generally showing itself first in the legs, and afterwards, if the attack be severe, spreading itself over the body, and changing to a brown or greenish yellow. In some cases there is a discharge of blood from the mucous membrane of the nose, mouth, stomach, and internal viscera, and this is likely to have a fatal termination. Purpura often occurs in connection with measles, small pox, and other forms of eruptive fevers; most frequently it is a disease of debility, and requires a generous line of treatment; animal Broths, Wine Porter, &c., should be given, with tonic and stimulants; one of the best remedies is Turpentine, given 3 times a day, in 10 or 15 drop doses. Sometimes, however, it attacks persons of a full and vigorous habit; then lowering measures, and perhaps bleeding, will be called for. Some



consider this disease as a species of scurvy; Bateman is one of these, and he divides it into five classes—viz.: *P. simplex*, *P. hæmorrhagica*, *P. urticans*, *P. senilis*, *P. contagiosa*; that is, Petechial, Land, Nettle-rash, Old Age, and Contagious Scurvy. (See *Skin Disease*).

**PURURIC ACID.** This acid is obtained from Uric and Lithic Acid; it is remarkable for its tendency to form red or purple-coloured salts, with alkaline bases.

**PURSINESS** (*pursy*, from *poussif*, French.) A common term for obesity in short persons.

**Pus** (Greek, *pyon*). The fluid formed on the process of suppuration. It is a white or yellowish matter found in abscesses, and on the surfaces of what are called healthy sores; it is specifically heavier than water, and under the microscope appears composed of transparent globules, floating in a colourless fluid. Healthy Pus is in consistence and colour much like cream, and it exhales a faint sickly odour; but it is frequently thin and serous, or flaky, bloody, or foetid, according as it constitutes a purulent discharge, or a purulent effusion; or is of scrofulous, or other origin. Pus differs from lymph in not being capable of organization, or, as the physiologist would say, it is a plastic material. When poured out into the substance of an organ, especially if it be of a spongy texture, it becomes "hepatized," or made like liver. This is a common result of inflammation of the lungs. Very commonly, when Pus is found in the cavities of an organ, there is a deposit of fibrine in the shape of lymph, which confines the Pus within certain limits, and prevents its infiltrating into the surrounding tissues, and this constitutes what is commonly called an *Abscess* (which see). But when Pus is thrown out on a surface, as of a wound, the tissue has previously closed, and become separated, leaving a vacuity, which we call an *Ulcer* (which see). If the process of destruction extends, it is what is called a *Sloughing Ulcer*; but, on the contrary, if the fibrin thrown out becomes partly organized, forming little red masses, which are termed granulations, it is a *Healthy Ulcer*. (See *Inflammation*, *Proud Flesh*, *Sloughing*, &c.)

**PUSTULES** are elevations of the cuticle of circumscribed extent, containing pus; they are conical in shape, and sometimes commence as a vesicle filled with transparent lymph, which afterwards becomes purulent, and constitutes a Pustule. This is the case with the Cow and Small Pox eruptions.

Under the several heads of *Acne*, *Ecthyma*, *Impetigo*, and *Porriago*, &c., will be found

accounts of the pustular eruptions to which man is liable. Some include Boils and Carbuncles in the list, which undoubtedly at first arise from slough of the true skin. To a common phlegmon, differing from a boil or furunculus in containing uniform and mature Pus, the term *Push* has been applied. According to Bateman, Pustules are classed under four heads, viz., *Phlyza-cion*, *Psydracium*, *Achor*, and *Favus*, the meaning of which term it is scarcely necessary for us to explain. (See *Skin Diseases*.)

**PUTREFACTION** (Latin *putris*, putrid, and *facio*, to make). A spontaneous decomposition of animal or vegetable matter attended with fætor. It is a kind of fermentation, during the process of which gases of a noxious nature are evolved. "The proximate cause of these changes which occur in organized bodies after death," says Leibeg, "is the action of the oxygen of the air on many of their constituents. This action only takes place when water, that is moisture, is present, and requires a certain temperature. This influence of atmospheric oxygen is very distinctly seen in fruits and other soft parts of vegetables, when, by an injury to their surface, the juice comes into direct contact with the air. When an apple is bruised at one point, a process of decomposition begins from the injured part. A brown spot appears, which increases in a regular concentric circle, till at last the whole apple becomes rotten, or is changed into a brown soft viscid mass. \* \* \* \*"

In like manner a process of decomposition sets in after death in the bodies of men and animals, which begins in the inside, in those parts—such as the lungs—which are in contact with the air. When there are wounds, it spreads from them; and in diseases, from the diseased part; so that, in many cases, death itself is nothing else than the result of a decomposition going on in an inward part. With the disease of which it is the prime cause the process begins, and it continues after death."

Much more might we quote from this authority to show that by this process of putrefactive fermentation the original elements of organized matter are liberated, and return to the air, or the soil from whence they were derived, to enter into new combinations, and form other vegetable and animal structures, as the case may be, and thus "the elements of the bodies of a former generation pass into, and become part of our own frames." All this is very curious and interesting, and it is also most important on account of its close connection with the origin and propagation of disease.

It is a well-established fact, that animal matter, in a certain state of decomposition, is capable of exciting a morbid action in the body of healthy individuals, hence the danger of dissecting, or operating on, bodies or parts in which there is putrescent matter, if there is a cut or scratch on the skin of the operator. It is equally well established that gases which are the result of Putrefaction, whether of animal or vegetable matter, will set up disease in the person inhaling them, hence we have fevers as the result of malaria, and epidemics occasioned by breathing an atmosphere loaded with morbid particles; and contagious diseases, the origin and propagation of many of which must be attributed to the same prolific cause of sickness and death. With regard to a theory supported by some, that the Putrefaction of animal matter is produced by microscopic animalcule, Liebig observes:—"To ascribe Putrefaction to the presence of animalculæ is as irrational as it would be to ascribe to the beetles, whose food is derived from animal excreta, or to the mites in cheese, the state of decomposition of the excreta or of the cheese. The presence of animalculæ, which are often found in prodigious numbers in putrefying matters, cannot in itself be considered wonderful, since these animals find there the conditions of their nutrition and development combined. It is quite certain, however, that on their presence Putrefaction is exceedingly accelerated. Their nutrition presupposes the consumption of particles of the putrefying body for their own development. Its more rapid destruction must be the necessary consequence."

It has been observed that the substances which arrest the process of Putrefaction in animal matter, are also those which destroy the communicability, or stay the propagation of contagions or miasms; thus, under the influence of empyreumatic bodies, such as Pyroligneous Acid, which powerfully opposes Putrefaction, and also of absorbents, such as Charcoal, the diseased action in malignant suppurating wounds is entirely changed; and Chlorides of Lime, Zinc, &c., which act as preservatives to animal matter, neutralize or destroy the poisonous emanations from those affected with contagious diseases. This goes to prove the truth of Liebig's argument, and show that Putrefaction is the remote, if not the proximate cause, of most, if not all, epidemic and contagious diseases.

**PUTRID FEVER.** A name given to *Typhus* (which see) for its unmistakable symptoms of putrescence. It has also been called

Spotted Fever, because it is attended with petechiæ, or flea-bite spots. The Spaniards term it *Tavardillo*, from *tavardo*, a spotted cloak.

**PYLORUS.** (Greek *pyle*, a gate, and *ora*, care). Literally a gate-keeper. The lower orifice of the stomach, guarding the entrance to the bowels; through the valves of this orifice no solids can, without great difficulty, pass into the duodenum. See *Œsophagus*.

**PYRAMIDALIS.** (Latin *pyramis*, a pyramid.) The name of a muscle arising from the pubes, and inserted into the linea alba, near half way between the pubes and umbilicus; it assists the *Rectus* (which see).

A slip of the occipito-frontalis muscle, which goes down over the nasal bones, and is fixed to the *compressor nasi*; it is called *P. nasi*.

A muscle which arises from the hollow of the sacrum, and is inserted into the cavity at the root of the trochanter major, is also sometimes called *Pyramidalis*; most commonly, however, it is termed *Pyriiformis*, from the Latin *pyrus*, a pear, which fruit it is thought to resemble; its office is to move the thigh.

**PYRETHRUM.** A species of *Anthemis* whose root is used as a sialogogue, under the name of *Pellitory Root* (which see).

**PYREXIA.** (Greek *pyr*, fire). A term applied to fever; the doctrine of fever being called *Pyretology*.

**PYROMETER.** (Greek, *pyr* and *metron*, a measure). An instrument invented by Mr. Wedgwood for measuring high temperatures. The dilation of bodies by heat forms the subject of that branch of science called *Pyrometry*.

**PYROPHORUS.** (Greek *pyr*, and *phoro*, to carry.) An artificial product which takes fire from exposure to the air; it is prepared from alum by calcination, with various inflammable substances. See *Homborg's Pyrophorus*.

**PYROSIS.** Pain in the epigastrium, accompanied with extreme heat and eructation of watery fluid. (See *Water Brash*.)

**PYROLIGNEOUS ACID.** Latin *lignum*, wood.) An acid obtained by distillation from wood (see *Acetic Acid*), by the distillation of which is produced an ethereal fluid, termed *Pyro-acetic Ether*. From the heating of Pyroligneous Acid in a close vessel is produced a peculiar spirituous liquor called *Pyroxylic Acid*, and by the decomposition by heat of Citric, Kinic, Mucic, and other Acids is produced *Pyrocitric*, *P. Kinic*, *P. Mucic Acids*.

**PYROLA UMBELLATA.** Ground Holly, or Winter Green, a plant of the natural order



*Pyrolacææ*, celebrated in North America for its specific action on the urinary organs; it is taken in the form of infusion, made by pouring a pint of boiling water over 1 ounce of the dried plant; the dose is from 2 to 4 ounces.

PYRMONT WATERS derive their name from that of a village in Westphalia which has long been celebrated for its mineral spring. The water is a highly carbonaceous chalybeate, the iron contained in it being about the same as that in the Spa Water; the gas, however, is more than double in quantity, and there is a larger proportion of the earthy carbonates. See *Waters*.

QUACKERY. According to Johnson, a Quack is a boastful pretender to arts which he does not understand; one who proclaims his own medical ability in public places; or an artful tricking practitioner in physick." And this gives us a sufficiently clear definition of the art practised by such a pretender to medical knowledge. The advertising Quack of bygone times was a travelling mountebank, who, from a stage in some public place, vaunted the hidden virtues of his nostrums, and his own power to cure all diseases to which flesh is heir. Nostrum vendors of the present day do not so present themselves to a credulous public; as a rule, they keep behind the curtain, and flood the columns of the newspapers, and all other mediums of advertisement, with their mendacious statements of wonderful cures effected by their invaluable remedies. Never, perhaps, was Quackery so rampant and ubiquitous as in this so-called enlightened 19th century; it would almost seem as if people wished to be duped, so eagerly do they clutch at each new panacea introduced with a great flourish of puffery, and a cloud of lying witnesses in the shape of forged testimonials. So great is the consumption of "patent medicines," whose government stamp appears like a certification of marvellous efficacy—whose high price is almost looked upon as an evidence of occult virtue. Quackery is sometimes confounded with Empiricism; but there is this difference between them, the former either adopts a concealed mode of treatment, or pretends to be possessed of a remedy applicable to every form of disease, and every individual case; the latter is founded upon the principle that, as certain medicines are known to have cured certain diseases, it will be right and safe at all times, and under all circumstances to administer those remedies, whenever the diseases, against which they have been successfully employed, appear again. This is

empirical treatment; there is no theory in the matter; no calling into play the reasoning faculties, and arguing from the nice deductions of scientific research; a few recorded facts as to the results of the administration of particular medicines are all that the empiric requires; satisfied with these he goes boldly on, forgetting, if he ever knew, that diseases vary greatly in their course and action, according to age and other circumstances, and hence often utterly failing in a course of treatment which may be empirically right. An empiric, however, must be, to a certain extent, an instructed man, a Quack need not; he may be, and often is, utterly ignorant of the nature and real operation of his much-vaunted remedy, composed, as he would have the public believe, of rare and costly ingredients, and of universal efficacy. Nothing but unblushing effrontery is here required, and a carelessness of consequences that would be ludicrous were it not highly criminal.

*Quack Medicines* are so numerous that it would occupy a good part of our remaining space to give the formula of those only which have attained the most celebrity, to the exclusion of more valuable matter: some of the most widely advertised pills we have already given under the head of *Nostrums*; and other common Patent Medicines, such as Daffy's Elixir, Godfrey's Cordial, &c., will be found under their proper alphabetical heads. Dr. Paris, in his "*Pharmacologia*," has a tolerably complete list of these medicines, with the forms of preparation.

Dr. Letheby, in concluding a series of valuable articles on the mischievous effects of Quack Medicines, which he contributed to the *Family Friend* writes thus on Quack advertisements:—"If any of our readers have ever been the victims of Quackery, we venture to say that it was through the medium of a cunningly-devised advertisement; for this is at all times the great decoy of the Quack. He knows its power, for he can count its results by thousands; and he spares no pains to use it with advantage. He studies it as he would a science; and he pays as much attention to the skilful practice of it, as many do to the exercise of a noble art. Indeed, the cunning and ingenuity of the quack are ever on the alert to find new means of developing the resources of the 'all-powerful puff.' At one time it comes forth in the shape of a learned lecturer, 'who, at the request and earnest solicitation of many friends to humanity, has condescended to

enlighten the world, by giving a course of six lectures on the entire principles of his system.' In the details of this course, everything is alluded to that can by any possibility excite the morbid feelings of those to whom the lectures are addressed; there are, for example, skeletons, drunkards' stomachs, diseased hearts, consumptive lungs, and other things of a like character; and not unfrequently, a hint is given that there is some probability of a sort of sparing-match between the lecturer and a real doctor, who has been invited to attend. This artifice has the effect of bringing together a large audience, and of producing to the lecturer very happy results.

"At another time, the puff appears in the form of an ingenious account of a new medicine, and of all the diseases which it will infallibly cure. These are generally enumerated in nearly the same order—the category beginning with flatulency, and ending with thoughts of self-destruction.

"To this is, generally, added a stereotyped account of the nature and effects of the medicine on the blood and humours. Morison is particularly apt at this: indeed, he may be called the founder of the *humorous puff*.

"The simplicity of this style is so exceedingly popular, that almost every new claimant for the honours and profits of quackery adopts it.

"Then, again, there is the *testimonial puff*, which has always been very successful as a decoy; and it wants but little management beyond that of keeping it up. Indeed, there are men who live by writing these puffs and selling them at so much per dozen. The styles of the various classes are always the same; and they may be subdivided into the *debauchee puff*, the *humanity puff*, the *sedentary puff*, and the *professional puff*.

The *puff professional* is always in the familiar style.

"Another sort of puff is that in which the advertiser abuses Quackery, and disclaims all connection with the unprincipled parties who thus impose on the credulity of their victims.

"Last of all comes the most vicious and abominable of all species of advertised quackery—that which is to be found in the bye-places of every considerable town. The announcements to which we refer profess to be an account of the practice of some duly qualified medical man, who will undertake to cure disease with certainty, with secrecy, and at a small charge. Many an unwary victim has been lured to the den of these impostors, by their specious announcements, and after having been almost ruined in

health and in pocket, has found himself for years afterwards the subject of the grossest extortion. That secret which the advertiser professed to keep, is a source of revenue to him, and we need not say how it is abused. We would warn the unwary from such dangers, as we would from the plague; and no language is severe enough to condemn the practices to which we refer.

"In conclusion, it must be manifest to our readers that the tricks of Quackery are at all times no other than the tricks of imposture. The idea of curing disease or of benefiting mankind has no place in the mind of the Quack; and even if it had, it is associated with too much ignorance to be of use. The one single object which he has in view is that of getting money by deception, and he cares not how it is accomplished, or at what cost it may be to the life and health of the community."

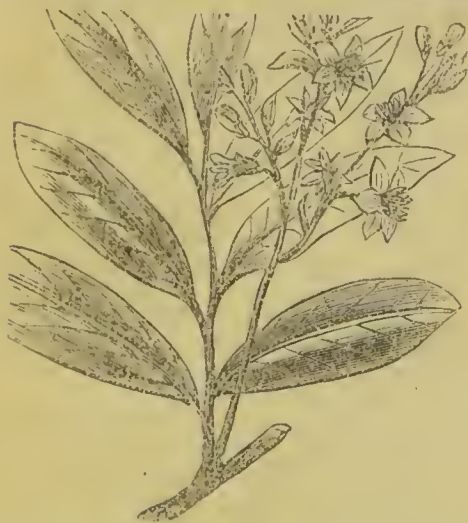
**QUADRATUS.** The name of two muscles, called *Q. lumborum* and *Q. femoris*; the first of which arises from the crest of the ilium, and is inserted into the last rib and the transverse processes of the four first lumbar vertebrae; and the second arises from the tuber ischii, and is inserted into the inter-trochanteral line; the former effects some of the movements of the loins, and the latter of the thigh.

**QUARANTINE.** Among the sanitary regulations which nations have agreed to observe in their intercourse with each other is that of performing Quarantine, which consists in travellers and passengers from a foreign clime remaining for a certain period in their ship, or a building appropriated to such a purpose, before being allowed to mix with the inhabitants of the place which they visit. The word comes from the Latin *quartus*, a fourth, and has reference to the period over which Quarantine originally extended, viz., forty days. This regulation is only enforced on persons coming from places in which malignant, contagious, or infectious diseases may be prevalent, and in cases of ships which have not what is called a clean bill of health, that is, a certification that they are free from any such diseases. It rests with the officers who are appointed for this special service to determine what shall be the term of isolation, which is often less than forty days, sometimes five, ten, or twenty, as the case may require; the law has reference to goods as well as persons; the building to which they are removed is called a Lazzaretto.

**QUARTAN AGUE.** A kind of intermittent fever, the paroxysms of which generally occur every fourth day.



**QUASSIA.** The wood of two species of plants belonging to the natural order, *Simarubaceæ*, is so called, after Quassi, Coissi or Quass, a negro of Surinam, who first discovered its tonic and febrifuge properties, and used it as a cure for the malignant fevers so prevalent in moist, tropical countries; the species which he used was the *Quassia Amara*, a small branching tree growing to the height of 16 or 20 feet, a native of the woods of Surinam, Guiana, Cayenne and Trinidad; but that which is now generally employed, because it is more plentiful, is a lofty tree called in the Caribbee islands, Bitter Ash; it is the *Simaruba*



*Excelsa* of botanists. Quassia is purely tonic, invigorating the digestive organs with little excitement of the circulation, or increase of animal heat; it has an intensely bitter taste, but no perceptible odour. Its virtue depends upon a bitter crystallizable principle, which has been called *Quassin*: when heated it melts like resin; both alkalis and acids increase its solubility in water. A strong decoction of Quassia is a good poison for flies, which would seem to be a proof that it has narcotic properties; it is said that brewers sometimes used the wood as a substitute for hops. The Infusion of the Quassia of the Pharmacopœia is made by pouring a pint of boiling water on 2 scruples of the chips or raspings; it is given as a tonic and antiseptic, in bilious fevers, united with Alkaline Salts; in gout, with Aromatics and Ginger; in hysteria, with Camphor and Tincture of Valerian; in dyspepsia, with Sulphate of Zinc or Iron, or with mineral acids; the dose is from 1 ounce to 4 ounces.

**QUERCUS** (Latin for an oak). The name

of a genus of trees of the order *Cupuliferæ*, to which belong the Dyer's Oak (*Q. Infectoria*), the species which yields the galls of commerce, (see *Galls*); the Common White Oak (*Q. Pedunculata*), the bark of which is employed medicinally chiefly as a local astringent, (see *Oak*); the Cork Oak (*Q. Suber*), the bark of which is the cork so useful for a variety of purposes; this contains a peculiar principle called *Suberin*, which in combination with nitric acid forms *Suberic Acid*. There is also the Black Oak (*Q. Tinctoria*), the bark of which is largely imported into this country from the United States; under the name of *Querciton*, it is employed as a yellow dye. Several other species might be mentioned of this important genus, but they are not medicinal plants, and therefore foreign to our subject.

**QUICKENING.** The motion of the fœtus in the womb, felt about the sixth month of *Pregnancy* (which see).

**QUICK LIME.** The hot recently burnt *Lime* (which see).

**QUICKSILVER**, that is living silver, (in Latin *argentum vivum*), so called from its fluidity. This is a metal found both native, and in the state of ore, in mines in various parts of the world: next to gold, platinum, and tungstein, it is the heaviest of all the metals, and is so remarkably fusible as to be congealed only at a temperature of 39° or 40° below zero; hence its great utility in the manufacture of barometers and other indicators of changes of temperature, &c. But it is with Quicksilver, or Mercury, as a medicinal agent that we are now chiefly concerned, and as such its importance can hardly be overrated: in a pure state, if used at all, it is entirely as a mechanical agent in obstructions of the bowels, under the impression that its mere weight will force a passage. The compounds of this metal are alterative, anthelmintic, anti-phlogistic, anti-syphilitic, cathartic, and deobstruent. They are all of them, except, perhaps, the sulphurets, capable of inducing a state of mercurialism, of which the prominent symptom is *Salivation* (which see); therefore, their action should be carefully watched. Some of the preparations are corrosive poisons, and all of them may do serious mischief if incautiously used.

Preparations of Quicksilver directly promote the secretion of the bile, or its flow into the intestines; they also increase the effect of diaphoretics and diuretics. We give a list of the principal mercurial compounds, their uses, and doses:—

*Hydrargyri Ammonio-Chloridum* (White Precipitate), used externally as a powder to

destroy lice in the head, and as an ointment.

*Hyd. Bichloridum* (Corrosive Sublimite). One of the strongest poisons known; given in venereal complaints with the greatest advantage, when a quick and general action is required; but its effects are often not permanent; in lepra, combined with antimonials, and in chronic rheumatism. A solution of 3 grains in a pint of Water, makes a good gargle in venereal sore throats, or a little stronger for breaking the abscess in cynanchic tonsillaris; this strength also may be used as a wash for scabies, for tetters, and for destroying fungi. Given internally, the dose is from 1-6th to  $\frac{1}{2}$  grain, made into a pill with Extract of Poppies. When taken in poisonous doses, the best antidote is White of Egg.

*Hyd. Bisulphuretum*. Given as an antisyphilitic in doses of from 10 to 3 grains in electuary, or bolus; and as a fumigation against venereal ulcers of the nose, mouth, and throat,  $\frac{1}{2}$  drachm being thrown upon a red hot iron; also in the form of lotion for gouty complaints and cutaneous affections.

*Hyd. Chloridum* (Calomel). In venereal diseases and liver complaints, sometimes combined with Opium; in scrofula, with Cicuta; in convulsive affections with Opium, Camphor, and Assafoetida, &c.; in Dropsy, with Squills, Foxglove, and Elettum; in rheumatism and lepra, with Antimonials, Guaiacum, and other sudorifics; as a purgative. in any case not attended with intestinal inflammation; generally with some other purgative; combined with Lime Water makes *Black Wash* (which see).

*Hyd. Iodidum*, in strumous affections and lepra; dose 1 grain, gradually increased to 3 or 4 grains, used externally in ointment.

*Hyd. Nitrico-Oxidum* (Red Precipitate). Seldom or ever given internally; used in the preparation of ointments, and applied in this form, or in that of powder, to chancre and foul ulcers, to cleanse and stimulate them; sometimes blown into the eye, in the proportion of  $\frac{1}{2}$  a grain to 4 grains of Sugar, to remove specks on the cornea.

*Hyd. cum Cretæ* (Quicksilver and Chalk, or Grey Powder). Chiefly given as an alterative in cutaneous and bilious affections; dose, 5 to 30 grains.

There is, likewise, a Mercurial Liniment which is stimulant and discent: a good application for indolent swellings, or parts affected with chronic or venereal pains.

These are but a few of the principal forms in which Quicksilver is administered and

applied; there are many others, for there is, perhaps, no single agent in the Materia Medica whose uses are more numerous and various; it not only has a specific action, but it appears to quicken and intensify that of any other drug with which it is combined; thus it is that we find it so often in combination with diaphoretics, with diuretics, with purgatives, &c.; perhaps its most remarkable and valuable property is its power of controlling and subduing inflammations of whatsoever part, and its action in this respect is especially marked and rapid in those affecting the eye. But it is on the liver that its most decidedly specific action is exerted; in small doses it stimulates the flow and improves the character of the bile; in larger it causes the bile to flow yet more freely, and carries it through the bowels with a purgative action. Frequently, when the liver is in an overloaded condition, a very small dose of some Mercurial preparation, such as Calomel, will cause a very rapid descent of the fluid, often in an acrid condition, giving rise to diarrhoea, attended with severe griping. When it is intended that Mercury shall act upon the system generally, its tendency to purge must be checked by combination with Opium, or it will be likely to pass off too rapidly, without producing the desired effect. When intended to affect the liver, Abernethy recommends that it shall be given by itself at night, a 5 grain Blue Pill is best, or the same quantity of Grey Powder, and a Black Draught, Castor Oil, or some other liquid purgative, in the morning.

On certain constitutions Mercury exerts a peculiar influence; causing in some great irritation, in others deadly faintness and nausea. Children can bear larger doses than adults, indeed it is often difficult to salivate a child. The stools caused by Mercurials are generally of dark olive green colour, particularly is this the case with the young.

The best antidote for poisons by any of the forms of Mercury is White of Egg; that of one Egg should be given for about 3 grains of the metal taken, if it is possible to ascertain this. Where there is great constitutional susceptibility, such poisoning sometimes arises from the administration of very small doses; weakly persons and children are most likely to be so affected. The symptoms are swelling of the cheeks with those of salivation generally, and sometimes mortification of the gums, &c. The remedies, Muriatic Acid in two drop doses, every six hours, with a grain of Quinine, or in Decoction of Bark; wine and strong



must be taken to administer Mercurial Powders in some saccharine, or gummy fluid; for the Grey Powder, Milk will do, but Calomel requires something thicker to keep it suspended; either of these may be given dry, merely mixed with Sugar and placed on the tongue, the patient taking a little fluid directly after to cleanse the mouth.

The peculiar effects of Mercury may be produced on the system by rubbing it into the skin: the Mercurial or Blue Ointment is generally employed for this purpose. Those who work in Quicksilver mines, are employed in the manufacture of looking-glasses, or are in any other way connected with the use of the metal, often become affected with Mercurial Palsy, which is characterized by a shaking of the limbs, which renders them incapable of continual labour.

There is no doubt that Mercury is far too indiscriminately used, and often when it is necessary its employment has been carried too far. Persons who are taking Mercury should carefully guard themselves against exposure to wet or cold. See *Argentum*, *Hydrargyrum*, *Mercury*.

**QUINCE.** This plant, called by botanists *Cydonia Vulgaris*, and belonging to the na-



tural order *Rosaceæ*, yields a fruit often used for imparting a pleasant flavour to apple and other pies, before its introduction into which it should be stewed, to render it as digestible as possible. Quinces make a not unwholesome marmalade, and the syrup prepared from them is a grateful addition to drinks during sickness; the seeds, when boiled in warm water, make a good mucilaginous decoction, which is useful in thrush and other irritable conditions of the mucous membrane; the form of preparation is—Quince Seeds 2 drachms to 2 pints of water, boil ten minutes and strain.

**QUININE.** This is an alkaloid, first discovered in the *Cinchona Cordifolia*, or Yellow Bark, where it exists with Cinchona; these two bitter alkaloids, constituting the medicinal properties of all the barks in which they are found in combination with kinic acid. Quinine is extracted from the wood by a chemical process, and, being afterwards combined with Sulphuric Acid, forms the Crystallized Disulphate of Quina, or Quinine, as it is commonly called. For internal administration this has almost entirely superseded the more bulky and disagreeable preparations of the bark itself, than which it is more active and efficacious. Except, perhaps, Opium, there is no drug more valuable to the medical profession than this. As a tonic and anti-periodic, it stands unrivalled; in agues, and intermittent fevers of all kinds, it is now indispensable; in neuralgic affections, and those arising from debility, its good effect is generally marked and decided. It has lately been recommended in cases of typhoid fever, and in the sinking stage, combined with Port-wine, is certainly beneficial. The common dose of the Disulphate of Quina is one or two grains three times a day; it is best given in solution, combined with double the quantity of dilute Sulphuric Acid, without which, or some other acid, it is insoluble in water; it is often given in some bitter infusions, such as Gentian, or Calumba; sometimes in Infusion of Roses, the acid of which readily dissolves it.

Many elegant and useful combinations of this substance have recently been introduced, such as the Valerianate of Quinine, highly recommended as a nervine and antispasmodic; the Arsenite of Quinine, which combines the antispasmodic action of the arsenious acid with that of the Quina; and the Citrate of Iron and Quinine, most serviceable in debility and facial neuralgia.

*Quinidina*, or *Quinidine*, is an alkaloid found in some kind of barks; it much resembles the true Quinine, both in its appear-

ance and action, although it is, perhaps, somewhat weaker. There is also a brown kind, called *Amorphous Quinine*, which is the Quinidine in an impure state; it does not dissolve so readily as the white crystals, nor act so efficiently; the dark thick solution which it makes with acid, is apt to cause nausea, and other unpleasant symptoms.

**QUINSY.** This is a throat affection, called by old writers *Squincy*, or *Squinancy*; a term derived from the Greek root *Cynanche* (which see), through the intermediate corruption of the French word *esquinancie*. This kind of inflammatory sore throat generally commences with cold chills, and other febrile symptoms; there is fullness, heat, and dryness of the throat, with a hoarse voice, difficulty of swallowing, and shooting pains towards the ear. When examined, the throat is found of a florid red colour, deeper over the tonsils, which are swollen and covered with mucus. As the disease progresses, the tonsils become more and more swollen, the swallowing becomes more painful and difficult, until liquids return through the nose, and the viscid saliva is discharged from the mouth; very commonly the fever increases also, and there is acute pain of the back and limbs. Sometimes, when the inflammation has reached a certain height, it gradually subsides, and the tonsils diminish with it, although they commonly remain for a considerable time unnaturally large; at others, there is a formation of abscess in one or both tonsils, and the patient suffers the greatest agony and distress, appearing often upon the point of suffocation; and this continues to be the case until the abscess bursts, or is opened to allow the matter to escape.

**Treatment.** When the case is not severe it may be treated, in the early stages, like *Catarrh* (which see); but when it is, more active measures will be required. An emetic, followed by a strong purgative; a blister outside the throat, and warm bran or linseed poultices; a cooling regimen with acid water, or pieces of rough ice put into the mouth and allowed to dissolve; leeches at the side of the throat if it swells much; inhaling the steam of hot water through an inhaler, or an inverted funnel; and the continuation, every four hours or so, of a saline aperient; these will be the proper measures to adopt. When the abscess has burst, and the inflammatory symptoms have subsided, a generous diet will be necessary, with tonic medicines. If the tonsils continue swollen, they should be rubbed outside twice a day with stimulating lini-

ments: Turpentine and Opodeldoc, equal quantities, will be as good as any; and the throat gargled with salt and water, a teaspoonful of the former put into a tumbler full of the latter. When there is chronic soreness of the throat, with hoarseness and cough, there is commonly also a relaxed and elongated uvula, which closes the passage when the patient lies down, and causes a sensation of choking. In this case a gargle made with Salt and Cayenne Pepper (about a table-spoonful of the former, and a teaspoonful of the latter, in a pint of boiling water) should be tried; the throat should be kept uncovered, and sponged with Vinegar twice a day. If these means are unsuccessful, it may be necessary to have part of the uvula cut off: this must be done by a surgeon, as must also the application of caustic, sometimes to be made when the throat has a granulated appearance. See *Throat, Tonsils, Uvula*.

**QUOTIDIAN AGUE.** A species of intermittent fever in which the intermission is every twenty-four hours; the paroxysm commencing in the morning, and the usual duration being under eighteen hours. See *Ague, Fever, Intermittent*.

**RABIES.** A term applied to madness occurring after the bite of a rabid animal; there are two varieties, which are characterized by marked symptoms, viz., *R. canina* and *R. felina*—Canine and Feline Rabies, the one being caused by the bite of a dog, and the other by that of a cat; in the first the constriction extends to the muscles of deglutition, which are violently convulsed at the appearance, or idea, of liquids; in the last, the spasmodic symptoms are less acute, and frequently intermitting. See *Hydrophobia*.

**RACHIS, OR RHACHIS** (Greek for the *Spine*, which see). From this root come the terms *Rachialgia* (Greek *algos*, pain), literally, spine-ache, it is applied to *Painters' Cholic* (which see); and *Rachitis*, a disease which consists of want of due firmness in the bones, in consequence, no doubt, of the deficiency of phosphate of lime in their structure. This affection is so named from its having been supposed to depend on disease of the spinal marrow.

**RADICAL VINEGAR** (Latin *radix*, a root). Concentrated Acid, which is the active principle of all vinegar, has been sometimes so called.

**RADISH.** The root of the *Raphanus Sativus*, a common garden plant of the natural order *Cruciferae*, is, as our readers are aware, very commonly eaten in an uncooked state; persons with good digestive



powers may not experience any ill effects from it, but those who are weakly and dyspeptic will be sure to do so. Of the wild Radish, which grows plentifully in our corn fields, we have spoken under its scientific name *Raphanea*.

**RADIUS** (the spoke of a wheel) a term applied to the small bone of the fore-arm.

**RAINBOW WORM.** A species of tetter occurring in small circular patches, each of which is composed of concentric rings of different colours; it is the *Herpes Iris* of Bateman. See *Herpes*.

**RAISINS.** The dried fruit of the vine, of which we make our plum-cakes and puddings, are, as an article of diet, unwholesome only because the tough indigestible skins are eaten; in the case of children they frequently cause much irritation and troublesome diarrhoea by lodging in the sacculi, or little pouches of the large intestines, where they may remain for weeks undigested, unless dislodged by a dose of Castor Oil, or some other active aperient. In these dried grapes the mucilaginous and, perhaps, the acid constituents, have been converted into grape sugar; they possess, therefore, a certain amount of nutriment. Those which come from Spain are by far the best; they include the Malagas, Muscatels, and Valentias. Raisins are used in various medicinal preparations, but more perhaps for the pleasant sweetness which they impart, than for their slight laxative properties.

**RAMENTA** (Latin *rado*, to scrape off). Filings, as of Iron. See *Ferrum*.

**RAMOLLISSEMENT DE CERVEAU** (French for softening of the brain) in Latin *Mollities cerebri*. This is the result of disease which sometimes reduces the organ to a pasty or pulpy condition, in which case there is a defect of nervous power, shown in *Paralysis* (which see).

**RAMUS** (Latin for a branch) as that of a bone, or an artery. *Ramification* is, in surgery, applied to the issuing of a small branch from a larger one, as of the minute branches from the larger arteries.

**RANEDO** (Latin *rancus*, hoarse). Hoarseness, generally a symptom of some affection of the bronchial passages, and caused by a thickening of the membrane: if of long standing, or, as we say, chronic, but little can be done to relieve it; if the result of active inflammation, the general treatment must be as recommended under this head, and, for local treatment, Stimulating Liniments rubbed into the throat, and Warm Bran Poultices; if these are not successful, try Blisters, or paint the throat with strong

Tincture of Iodine until it becomes sore: Demulcent Drinks will sometimes be of service, and Acid Gargles. See *Cough*, *Croup*, &c.

**RANINE** (Latin *rana*, a frog). The name of an artery, and also of the vein of the tongue. *Ranula*, which is the diminutive of *rana*, signifies Frog-tongue, a tumour under the tongue, arising from an accumulation of saliva and mucus in the ducts of the sublingual glands. The term is derived either from an imaginary resemblance of the swelling to a frog, or from the peculiar croaking noise which the patient makes with it.

**RANUNCULUS.** The name of a genus of plants, all of which are more or less acrid or poisonous; their acridity depending on a



volatile principle which is destroyed by boiling; or even simply by drying; hence the buttercups of our fields, which belong to this genus, when cut with the grass and made into hay, lose their noxious properties. Taken internally, the fresh juice, or extract, of the *Ranunculus Acris* causes an intense inflammation of the digestive organs, and, if the dose has been considerable, it is a true acrid poison, and has been known to cause death; the juice of another common species, *R. Bulbosus*, applied to the nostrils, causes sneezing; a portion of the root has been found to act beneficially in cases of toothache; with the juice of *R. Thora*, an Alpine species, the Swiss hunters, it is said, were wont to poison their darts; and even the golden buttercup—that darling of our childhood—which botanists term *R. Repens* although less acrid than most, is so much so that cattle do not feed on it willingly; this, however, they do on the water-crowfoot, *R. Aquatilis* probably because the acrid

principle of the plant is destroyed by its immersion in water. The juice of most members of this genus of plants when applied to the skin acts as a rubefacient, and in some cases as a vesicatory, causing an actual blister.

**RAPE OIL.** An oil expressed from the seeds of the cultivated Rape or Coleseed



(*Brassica Napus*), of the natural order *Cruciferae*; it was sometimes used in making ointments, &c., but is not commonly now.

**RAPHANIA.** An affection attended with spasms of the joints, trembling, &c. First noticed in Sweden, and so called because it was supposed to be produced by eating the seeds of the wild radish, which in that country, as in this, often grows among the corn; the plant (*Raphanus Raphanistrum*), is much like Charlock, for which it is often mistaken. To the tribe *Raphanææ*, belong two well-known garden plants—the *Radish* and the *Sea-kale* (which see); and also the *Sea-radish* (*R. Maritimus*), the roots of which, for culinary purposes, are said to be superior to Horse-radish.

**RAPHÆ** (Greek *rapho*, to sew). A line having the appearance of a seam, as that of the corpus callosum, the serotum, &c. From the same root comes the botanical term, *Raphides*, small spiculae, obtained from plants, and supposed by some to be hairs, but described by Raspail as acicular crystals of phosphate of lime, which is known to abound in the textures of vegetation.

**RAPTUS** (Latin *raphio*, to seize hastily). Literally a sudden surprise of any kind; thus cramp is called *Raptus nervosus*.

**RAREFICATION** (Latin *rarus*, thin, and

*facto*, to make). The act of making a substance less dense; this is generally effected by the increase of temperature; the term being mostly applied to elastic fluids, which expand by heat, and so become *rarefied*. To solids and liquids we apply the terms dilation and expansion; to aeriform fluids Rarefaction, which it has been found by experiments with the air-pump can be carried to so great an extent as to cause air to occupy a volume 13,000 times greater than it does ordinarily. Air in a highly rarefied state, as it is at great elevations, which will cause the same effect as heat does below, is unfit for breathing; thus travellers ascend high mountains and go up in balloons find, frequently experience the most acute pains at every breath they draw.

**RASARA** (Latin *rado*, to scrape off). A rasure or scratch; the term is sometimes applied to the raspings or shavings of any substance, as Guaiacum or Quassia wood.

**RASHES.** Patches of superficial redness of the skin; they may occur on any part of the body, and are generally accompanied by increased heat and irritation, sometimes by swelling, inflammation, and considerable pain; they are not contagious.

Under the head of *Red Rashes*, or *Blotches*, are generally comprehended *Abrasions*, *Erythema*, and *Excoriations* (which see). When Red Blotches occur in the face they are generally connected with some constitutional derangement, often with dyspepsia, to the cure of which the general treatment must be directed; the face should be washed in warm water, and the Blotches dapped with Camphorated Spirit.

*Rose Rush* is common with children during dentition, and is, therefore, called *Tooth Rash*; it arises from intestinal irritation, and most usually shows itself about the face, although it may appear on any part of the body. With adults it usually occurs in hot weather; fatigue, drinking largely of cold water, or eating indigestible food, will bring it forth. It sometimes occurs during the eruptive form of small pox, and sometimes after vaccination, in a congeries of small dots or patches. Mild aperients, such as Rhubarb and Magnesia, cooling drinks, tepid baths, with frugal diet and rest, are the best remedies. There is usually considerable itching with these Rashes, which may be allayed by the application of Goulard Water, or some other cooling lotion.

**RASPBERRY.** This well known plant is the *Rubus Idæus* of botanists, belonging to the extensive natural order *Rosacææ*. We need scarcely enumerate the various uses to



which its fragrant, sub-acid, and cooling fruit is applied; it is extremely wholesome, and allays heat and thirst perhaps better than any other kind of fruit excepting its near relative the *Strawberry* (which see), and, like that, it is not liable to acetous fermentation in the stomach. *Raspberry Jam* is one of the most pleasant and whole-



some of confections, and *Raspberry Vinegar* is very useful in times of sickness, to make acidulous drinks or gargles for sore throats; for the former purpose about a dessert spoonful should be mixed in a tumbler of cold Water; for the latter, the Vinegar should be used with half Water.

**RATANY or RHATANY ROOT.** The drug so called is the root of the *Krameria Triandria*, of the natural order *Polygalaceæ*, a native of Peru, where it is called *Ratanhia*. It is tonic and powerfully astringent, and is efficacious in chronic diarrhoea and passive hæmorrhages. It is much used in the manufacture of Port Wine, to which it imparts its characteristic rich red colour. Chemical analysis shows the root to contain tannin, lignin, and minute quantities of gum, starch, saccharine matter, and krameric acid, to which its peculiar properties are supposed to be owing.

**RATSBANE.** A name sometimes applied to White Arsenic, and also to Nux Vomica, for obvious reasons.

**REACTION.** In physics means counteraction, or the resistance offered by one body to the opposing force of another: in medicine, it is the resistance of the animal system to depressing causes and influences, the tendency of which is, not merely, to restore the ordinary level, so to speak, but to go above

and beyond it, to an extent proportionate to the force exercised in an opposite direction: thus, after the shivering, pallor, sad expression of countenance, slow and weak pulse, of the cold stages of fever, we have the flushed cheek, bright eye, full bounding pulse, and hot skin of the reactionary stage, when all the physical powers seem stimulated to increased activity. This tendency of nature to rise superior to the depressing influences, to which she has been obliged for a while to succumb, must be borne in mind in any efforts which may be made for restoration from a state of depression, especially in cases where fever is present or imminent. Stimulants should, in all such cases, be very carefully administered; or, if absolutely necessary for the preservation of life, they should be such as are not likely to act as very powerful excitants of the brain; external warmth, or sinapisms; or emetics of mustard; Tea, Coffee, the preparations of Ammonia, especially Sal Volatile, may all be employed in preference to alcoholic fluids, as means of rousing the system to the necessary reaction.

**READING, OR SPEAKING ALOUD,** is a good exercise for those who have sound healthy lungs, and are free from affections of the throat and bronchial passages; but, by those who are predisposed to consumption such exercise should be avoided as much as possible; as, if persisted in, there will, probably, ere long be spitting of blood, huskiness, dry cough, and other bad symptoms. Where there is a predisposition to head affections, also, loud and continuous Reading or speaking, should be avoided, as the quickened respiration and circulation, which are caused by this practice, will be likely to bring on an attack of apoplexy. In cases of hysteria and nervous disorders, however, this exercise may be recommended as remedial, provided it be not carried beyond the strength of the patient. Those who are obliged to read or speak much, as ministers, lecturers, &c., should be careful not to expose themselves to fogs or cold air, and to moisten the throat occasionally with a little water, or some demulcent, or acidulous drink.

**REAGENT** (Latin *re*, again, and *ago*, to act). Any substance employed in chemical analysis for ascertaining the quantity or quality of the component parts of bodies by reacting upon their elements. See *Test*.

**REALGAR.** The Protosulphuret of Arsenic. It is either *native*, and dug out of the earth, as in China; or *factitious*, procured by boiling orpiment or the sesqui-sulphuret in subliming vessels. See *Arsenic*.

**RECEIVER.** A vessel fitted to the neck of

retort, alembic, &c., for the purpose of receiving the products of distillation; it is sometimes called the *refrigerator*, because in it the fluid, which rises as vapour, becomes cooled and condensed. See *Distillation*, *Retort*.

**RECEPTACULUM CHYLI.** The Receptacle of the *Chyle* (which see). This is an enlargement of the thoracic duct near the thoracic aperture of the diaphragm.

**RECLINATION.** A term employed in Germany to denote the operation of turning a cataract, so as to change the position of its anterior and posterior surfaces. See *Cataract*, *Eye*.

**RECREATION.** Only those who have had a busy life, and are accustomed to great bodily and mental fatigue, can thoroughly enjoy Recreation; the idle and listless, who have little or nothing to do but saunter about the world with their hands in their pockets, cannot understand the meaning of the term; it is for the toilers and moilers to do this, and for such Recreation is a good and necessary thing; pity it is that so many of them get far too little of it. Let us not confound Rest with Recreation: the former is the mere passive enjoyment of repose after labour, and involves no exercise of the higher faculties; the animal may rest; the man must recreate himself, or he, ere long, sinks to the level of the brute; he must have pleasurable excitement for the mental and physical powers, whose action and reaction on each other is highly conducive to health both of mind and body. Many there are, it is true, who seek and find their Recreation in scenes of vice and debauchery, or, at best, in those pleasures which are merely sensuous, and this will naturally be the case with those who are overworked, especially if their minds are uncultivated. Many there are who are the willing slaves of sordid cares; absorbed in one engrossing pursuit, that of money getting. They cannot Recreate themselves, and are equally to be pitied with those who have no relish for true intellectual Recreation, and those who have no time or means to obtain it. The wise man, who desires a long life, will not scruple to make some sacrifices, for the sake of healthful Recreation; it is just so much better than medicine, as prevention is better than cure; but, if too much of it is taken, it ceases, like many good things, to be salutary, nay, not only so, but is actually destructive of health.

**RECTIFICATION.** The repeating a distillation, or sublimation, several times, in order to ensure greater strength and purity in the substance: thus, when we speak of Rectified

Spirit, we mean Spirit which is over proof, or extra strong.

**RECTOR SPIRITUS.** An old name for the aromatic principle of plants. See *Essential Oil*.

**RECTUM** (Latin, *rectus* straight). This is the gut which opens into the anus; it is the last of the *Intestines* (which see). From the same root come the names of several muscles, such as the *Rectus superior*, *inferior*, *internus*, *externus*, *capitus*, &c.

**RECURRENT** (Latin *recurro*, to run back). The designation of a branch of the posterior tibial artery, and of the inferior laryngeal nerves.

**RED GUM.** According to Dr. Willan, this is a corruption of the term *Red-gown*; the variegated spots of red upon a pale ground, being supposed to resemble the printed pattern of a piece of linen. This generally attacks infants at the breast, and is characterised by an eruption of minute hard pimples, sometimes of a pale colour, but more commonly red; except that their itching causes the child considerable annoyance at times, they are by no means very troublesome or dangerous; of themselves, they are of little consequence, but as symptomatic of some internal disturbance, they demand attention. When they appear, the action of the bowels should be carefully watched, and aperients administered if necessary. For the eruption, tepid baths about twice a week, should be resorted to.

**REDUCTION** (Latin *reduco*, to bring back). In chemistry this signifies the process by which a substance is restored to its original or natural state; it is generally applied to the operation of restoring metallic oxides to the metallic state. In surgery it is the operation by which a dislocated bone is restored to its proper situation. See *Dislocation*.

**REFRIGERANTS.** Medicines which diminish the morbid heat of the body; they may be external and local, or, internal and general. The chief of those in use are Acids, Cream of Tartar, Ice, Mindererus Spirit, Nitre, Sorrel, Summer Fruits, Tamarinds, Vinegar and Water. A *Refrigeratory* is a chemical vessel filled with water for condensing vapours, or for cooling any substance that passes through it.

**REGIMEN** (Latin *rego*, to rule). A rule of diet, &c. prescribed for a patient; it includes not only the kind of food, drink, &c., and times at which it is to be taken, but also recreation, exercise, employment, dress, &c. It is manifestly of great importance to the success of medical treatment that there should be strict attention paid to all these



matters; knowing the influence they have upon the health of an individual, we should be especially careful to observe the rules as to Regimen laid down by the wise physician. Under the various heads of *Clothing, Diet, Exercise, Food*, will be found so much upon this head, that we need not dilate on it here.

**REGION.** A term applied to the artificial divisions of the body, being those of the *Chest* and of the *Abdomen* (which see).

**REGULUS** (Latin *rex, regis*, a king). This name was originally given to metallic matters, when separated from other substances by fusion; it had its origin in the expectation of the alchemists of finding gold, the king of metals, at the bottom of their crucibles. The term was afterwards applied to any metal extracted from the ores of the same metals; thus we read in old works, of *Regulus of Antimony, of Arsenic, &c.* From the same root comes the term *Regius*, royal, applied by way of distinction, as *R. morbus*, Royal Disease, or Jaundice, so-called from its golden colour; and *R. aqua*, Royal Water, a mixture of Nitric and Muriatic Acid, so named from its power of dissolving gold.

**RELAXATIO UTERI.** Relaxation of the Uterus; a term denoting that partial descent of the womb, when it sinks down to the middle of the vagina; if the descent be lower than this (to the labia) it is termed *Procidentia*, and, if lower still, it is *Prolapsus* (which see).

**REMEDIUM** (Latin for a Remedy, which term comes from *medior*, to cure); thus all drugs which contribute to the alleviation of pain, or have a curative effect on disease, are Remedies.

**REMITTENT.** The name of a class of fevers characterized by remissions and exacerbations, but without clear intermissions, the paroxysms occurring every twenty-four hours. Remittents are commonly divided into three classes, viz., the mild, the malignant remittents, and *Hectic Fever* (which see).

**RENES** (Latin for the kidneys), hence anything belonging to or affecting the kidneys, is termed *renal*; hence, too, the term *reins*, applied to the part of the back where these organs are situated.

**RENNET, or RUNNET** (German *runnen*, to run or curdle). The inner membrane of the calf's stomach, which, when infused in hot water, yields a fluid which has the property of coagulating milk, and converting it into curds and whey. A popular and not unwholesome article of diet called *Fresh Cheese*, is made of Milk and Rennet, with Sugar and Nutmeg. Gray gives the following recipe for *Rennet Whey*:—Milk 2 pints,

Rennet  $\frac{1}{2}$  an ounce, infused in a little water; mix, and keep in a gentle heat some time, then strain. See *Whey*.

**REPELLANT** (Latin *repello*, to draw back). An application which causes a disease retire from the surface of the body.

**REPULSION** (Latin *repello*). That effect of caloric, by which the particles of a body into which it enters, are removed from each other; this is similar to rarefaction, and the opposite of cohesion.

**RESIN.** This is a solid inflammable substance of vegetable origin, soluble in alcohol, and in oils, but not in water.

*Resins*, properly so called, differ from balsams, although the latter are resinous bodies, and may be either solid or liquid; they have all of them more or less traces of the presence of benzoic acid: the Germans distinguish these as *Natural Balsams*, and call the others *Hard Resins*; the first are usually of a soft consistence, and contain a certain proportion of volatile oil.

The common Resin of commerce is thick, hard, yellow, semi-transparent residuum left after the distillation of the volatile oil of *Turpentine* (which see); united with alkalis it forms a soluble soap: it has diuretic properties, but is not given internally; as an external application in plasters, cerates, and ointments, it is stimulant and also protective; the Resin Ointment of the Pharmacopœia known as *Yellow Basilicon* has long been in high repute as a drawing application, and the common *White Sticking Plaister* has in it a large proportion of Resin. The resins are capable of uniting with the bases, and these combinations are called *Resinates*.

**RESOLUTION** (Latin *resolvo*, to relax). The subsidence of inflammation without abscess, ulceration, mortification, &c.; or the dispersion of swellings and tumours. From the same root we have *Resolvent*, any substance employed to reduce or subdue inflammatory tumours, &c.

**RESPIRATION** (Latin *respiro*, to breathe again). The function of breathing, which consists of two acts, viz. *inspiration* and *expiration*; the first, according to Sir H. Davy, generally takes place about 26 times in a minute, the quantity of air usually inspired, or drawn in, being about 13 cubic inches; the last act alternates with the first, and of course about the same volume of air must be driven out. We sometimes speak of these two acts as *inhalation* and *exhalation*; united they constitute the function by which the nutrient circulating fluid of an organized body is submitted to the influence of air, for the purpose of changing

properties: by this duplex operation the vital fluid is oxygenized and decarbonized; we have endeavoured to explain under the heads *Blood, Breath, &c.* We may here observe that Respiration goes on in plants as well as animals, but with the latter it is the carbon which is extracted from the atmosphere, and the oxygen which is returned: a wise and beneficent provision which maintains the balance necessary for both animal and vegetable life. In fishes, respiration is performed by means of the gills, which answer the purpose of our lungs, being acted on by the air contained in the water.

**RESPIRATOR.** An instrument intended to modify the temperature of the air inhaled, and thus lessen its noxious influence on the lungs; it is made so as to cover the mouth, over which it is secured by means of proper bandages; it is composed of several folds of silk or other material through which the air is, so to speak, filtered and rendered less keen, a manifest advantage to consumptive persons or any who have delicate and susceptible lungs, which we speak of as *Respiratory* organs.

**REST HARROW.** The *Ononis Arvensis* of botanists; a common wayside plant of this country belonging to the natural order *leguminiferae*; it is sometimes called Cam-



beck, and has long been given to horses as a diuretic; it has also had some repute as a remedy in chronic rheumatism; the form of administration being that of a decoction of the fresh bark and roots, of which, it is said, a quart must be taken daily.

**REST.** That a certain amount of Rest is necessary to man's physical well-being it

scarcely needs an argument to prove. Not only the voluntary muscles, but also the thinking powers—the will and attention, require this. God has so ordered that the action of the involuntary muscles, those by which breathing, &c., is performed, shall go on unceasingly, without wear or fatigue; but with those of nervous sensation and others, which receive their directing power from the brain, it is different; these must have their seasons of Rest, or they will soon fail to perform their functions. With regard to the amount required, this varies with age, state of health, constitution, &c., but as a general rule from 6 to 8 hours appears to be about the proper range, and this should be taken in a pure atmosphere, and in a horizontal position. See *Sleep*.

**RESUSCITATION** (Latin *resuscito*, to rouse again). The act of reviving or restoring to life, as exhibited in persons apparently drowned, or rendered unconscious by inhaling noxious gases, &c. See *Asphyxia, Carbonic Acid Gas, Drowning, Suffocation, &c.*

**RETCHING** (Saxon *hræcan*, to stretch, to vomit; properly, to reach). This term is applied to an ineffectual effort to vomit. Violent Retching is one of the most distressing symptoms of biliary and other derangements of the stomach: it is sometimes very obstinate and long-continued, so as completely to exhaust the patient, especially if in a weakly state, and cause a rupture of a blood-vessel, or other alarming consequences; if it proceeds from an overloaded stomach, or the presence of any poisonous substance, it is best to produce vomiting by an emetic; otherwise effervescing draughts should be tried, with 5 drops of Laudanum in each, and the other remedies recommended under the heads *Nausea, Sickness*.

**RETE MUCCOSUM** (Latin for mucus net). The name of the tissue lying directly under the dermis. See *Skin*.

**RETIFORMIS** (Latin *rete*, a net, and *forma*, a likeness, netlike). A name given to the erectile spongy tissue of the vagina (which see).

**RETINA.** The netlike expansion of the optic nerve on the inner surface of the eye (which see).

**RETORT.** A globular vessel of glass with a long neck bent downward like the bill





of a bird. In distillation it is generally made of glass or earthenware, and when furnished with an opening in the top, through which it may be charged, it is called a tubulated Retort. The end of the tube is made to fit into the short neck of a receiver, in which the products of distillation are collected.

**RETROVERSIO UTERI** (Latin *retro*, backwards, and *verso*, to turn). A morbid inclination of the uterus to turn backwards.

**REVERIE** (French *révêr*, to dream, or be light headed). Properly raving or delirium, but as generally understood, a voluntary abstraction, an inactivity of the whole or greater part of the external senses to the impressions of surrounding objects during wakefulness. Dr. Good describes three species of this mental aberration, which he calls: 1. *Absence of Mind*, in which the attention is truant, and does not yield readily to the dictates of the will. 2. *Abstraction of Mind*, in which the attention is riveted, at the instigation of the will itself, to some particular theme unconnected with surrounding objects. 3. *Brown Study*, in which the attention has the control of the will to relax itself, and give play to whatever trains of thought are uppermost.

**REVULSION** (Latin *revello*, to pull away.) The occurrence of a secondary disease in a part remote from the seat of the primary affection (see *Derivation*).

**REYNOLD'S SPECIFIC.** A nostrum for gout and rheumatism once in high repute; it was made thus:—Fresh bulb of Colchicum, 8 ounces; Sherry Wine, 16 ounces; macerate for 8 or 10 days in a gentle heat; colour with Syrup of Poppies, and flavour with Rum. A dangerous medicine in unskilful hands; the inventor is said to have killed himself by taking an overdose of it.

**RHEUM** (Greek *reo*, to flow). A thin serous fluid, secreted by the mucous glands, &c., the result of an increased action of the vessels of any organ. The term *Rheuma* signifies a cold, or febrile defluxion of the chest, of the fauces, or of the nostrils: the old pathologists distinguished three several affections as *Catarrhus*, *Bronchus* and *Coryza*. Formerly the term was synonymous with *gutta*; thus cataract was called obscure Rheum, or gutta; and Amaurosis, the transparent, or serene Rheum, or gutta.

**RHEUMATISM** (Greek *reuma*, a watery humour, and *reo*, to flow). This painful disease, which affects the muscles and joints of the human body, was so named by the ancients, under an impression that it proceeded from a defluxion of humours; it chiefly affects the larger joints, as the

hips, knees, and shoulders, and is generally attended with swelling and stiffness; when accompanied by fever it constitutes *Acute Rheumatism*, or *Rheumatic Fever*. Some pathologists make the following distinctions of the disease:—1st, *Articular Rheumatism*, occurring in the joints and muscles of the extremities; 2, *Lumbago*, occurring in the loins, and mostly shooting upwards; 3, *Sciatica*, occurring in the hip joint, with emaciation of the nates; 4, *Spurious Pleurisy*, occurring in the muscles of the diaphragm, often producing inflammation of that organ.

Acute Rheumatism generally commences with a feeling of weariness, shivering, and a quickened pulse, accompanied by redness of heat and pain, in or around one or more of the larger joints; sometimes several are affected at once, but usually they are attacked in succession; this method of going from one joint to another being a marked characteristic of the disease; sometimes the first joint is relieved, when the attack is felt in another, but not always: sometimes the whole of the larger joints become implicated, and then the smaller ones, and finally the heart, in which case there is generally a fatal termination to the patient's sufferings. The fibrous tissues of the body appear to be the media by which the Rheumatic affection is communicated from one part to another; the disease, it is likely, is constitutional, depending on a morbid condition of the blood; one of its symptoms is considerable heat of the skin, and a profuse sour-smelling perspiration; generally the urine is high-coloured, and deposits a sediment like brick-dust. In one of the acute forms of the disease there is puffiness around the part attacked, with distinct red lines running from it, and, subsequently, œdema; with this we have, generally, a high degree of inflammatory fever, with a furred tongue, and very copious acid perspirations; this is the form in which the heart is most likely to be affected. In the other and more common form, the fever is not so violent, and moderates as soon as the joints begin to swell; this form is generally called Rheumatic Gout.

The similarity between Gout and Rheumatism renders it probable that the same cause may originate both; there is, however, a marked distinction in the circumstance, that in Gout the poison which is in the system, separates itself from the blood, and is deposited in the form of chalk-stones; in the latter it appears to be thrown out in that peculiar acid so remarkable in the perspiration.

Cold and moisture would seem to be the principal exciting causes of acute Rheumatism; probably by checking perspiration, and so preventing the poisonous principle from passing off by the skin, so that it is retained, and circulates in the blood. Violent exercise and over exertion will sometimes bring on an attack of this disease, which, like Gout, is hereditary in some families. Persons between the ages of 15 and 40 are most subject to it, but where there is the above-mentioned predisposition it often shows itself in the young.

The *Treatment* of the acute form should be prompt and active, the inflammatory fever having first to be subdued: purgatives and general bleeding, if the patient is of full habit, but not the latter otherwise. Dr. Graves says that in this disease, "Blood-letting should be practised with great caution, and its effects carefully observed: take away five or six ounces of blood, and if the pain be lessened and the sweats diminished, you are encouraged to bleed more boldly."

About 3 grains of Calomel at night and a Black Draught in the morning, to be repeated every four hours until the bowels are freely opened; plenty of warm diluent drinks, and confinement to bed with warmth to promote perspiration. Apply to the inflamed parts a lotion composed of Spirit, Vinegar, and Water, one part of each of the former to two of the latter, with the chill taken off; if the pain is very great at the joints, Leeches may be applied. When the inflammation is in some measure subdued, recourse may be had to the grand specific in diseases of this class, viz., Colchicum, 15 drops of the Wine of which may be taken every four hours, with  $\frac{1}{2}$  a drachm of Sweet Spirits of Nitre,  $\frac{1}{2}$  an ounce of the Liquor of Acetate of Ammonia, and 1 ounce of Camphor Mixture; at bed time a scruple of Dover's Powder, with two grains of Calomel, until the mouth becomes slightly affected, when the latter must be omitted; should the action of the Colchicum on the bowels be too strong, reduce the dose by one-half, or omit it altogether, and give  $\frac{1}{2}$  grain of Tartrate of Potash, with 5 grains of Nitrate of Potash, in Camphor Mixture, every four hours. Should the joints continue swollen and purple, blisters may be applied after the Leeches, and when the bites are healed, friction with Mercurial Liniment, and an air-tight covering over cotton carded wool should be applied.

In less acute cases, where the urine is acid, and deposits the before-mentioned

sediment, a mixture like this may be taken in conjunction with saline aperients: Bicarbonate of Potash 2 drachms, Infusion of Gentian, or Calumba, 6 ounces; take 1 ounce three times a day until the deposit ceases; or substitute for the Bicarbonate, the Liquor of Potash, 1 drachm. Also dissolve a little Nitrate of Potash in Barley Water, and take a wineglassful now and then as a restorative to health. When the disease appears to be nearly subdued, take Hydriodate of Potash 1 drachm, in Decoction of Sarsaparilla 8 ounces, a wineglassful twice a day.

When Rheumatism has become chronic it is generally very intractable; it is most capricious in its visitations, sometimes affecting one joint, sometimes another, and generally leaving the part attacked swollen and tender; to this it will frequently return, sometimes causing thickening of the joint and permanent lameness; sometimes the symptoms resemble those of acute Rheumatism and require leeching, spare diet, and a similar line of treatment; but this is not generally the case: a tolerably generous diet, with nervous stimulants and stimulating applications being mostly necessary for the chronic forms of this troublesome and painful disease, in which, excepting Colchicum, nothing appears to exercise such a specific action as Guaiacum, which may be taken in the form of powder, or tincture. Besides these two remedies, Ginger, Mustard, Sulphur, Turpentine, Compound Powder of Ipecacuanha, and Cod Liver Oil, have all been found beneficial. Indeed, there is perhaps no disease for which so many different "cures" are recommended; nor is there one which more obstinately retains its hold on the system, and defies all attempts to dislodge it. Anything which promotes free perspiration is likely to be beneficial; warm bathing and friction; sulphureons, hot air, and vapour baths, have been found of great service, and the patient must not be disheartened if they do not succeed at once, or if the disease returns after they have, as it appeared, subdued it; he must continue the remedies for a long time, and return to them again and again if necessary. Seldom or ever is Rheumatism quite got rid of, when once it has taken a hold of the system. For a description of other of its forms, with modes of treatment, see *Lumbago* and *Sciatica*.

RHODIUM (Greek *rhodon*, a rose). A metal discovered by Dr. Wollaston, among the grains of crude platinum, and so named from the rose colour of some of its compounds.

RHODODENDRON. The name of a genus



of plants of the natural order *Ericææ*, some of which are reputed to possess medicinal properties; the juices of the whole of them are acrid, and to some extent, narcotic, giving a slight foundation for the idea entertained by the ancients, that the honey collected by bees from the species *Azalea Pontica*, drove those mad who partook of it.



The *R. Crysanthemum*, a small shrub, about a foot high, a native of Siberia, has stimulant, narcotic, and diaphoretic properties, causing, when taken in large doses, vomiting, purging, and delirium. It enjoys in Siberia a great reputation for efficacy in a variety of diseases, but is chiefly used as a remedy in rheumatism; an infusion of the leaves is taken, which causes a creeping or pricking sensation, which gradually subsides, and with it the rheumatic pains; it is also said to be good in palsy and syphilis. *R. Ferrugineum* is employed by the inhabitants of the Alpine districts, where it grows, to produce perspiration. A thick oil made by infusing the buds, and called by the Piedmontese *Olio di Marmotia*, is used by them as a healing application for wounds, and as a liniment in diseases of the joints. *Ledum Palustre* grows in the north of Europe and North America, where it is called Wild Rosemary; its leaves, which have a balsamic odour and aromatic bitter taste, are used to allay irritation in whooping-cough, dysentery, and various cutaneous diseases, especially leprosy and scabies: the Decoction is employed both externally and internally; an oil is obtained from the leaves by distillation, whose odour is intoxicating, and taste aromatic and bitter. The leaves of *L. Latifolium*, plentiful in North America, sometimes called Labrador Tea, have an agreeable taste and odour; they are

esteemed pectoral and tonic, and are often used as a substitute for tea. The *Kalmia Latifolia*, a very beautiful shrub, found over the United States, and called Mountain Laurel, and Calico Bush, is narcotic and very poisonous, so much so, that the Indians use the juice to poison their arrows with, and when tired of life, destroy themselves with a decoction of the leaves. A wash or ointment prepared from these leaves, is found useful in scald-head, itch, and other cutaneous affections, and also in syphilitic eruptions. The infused leaves of *K. angustifolia*, are used by the negroes of North Carolina, as an application to ulceration between the toes.

These are some of the uses to which the members of the sub-class from which we derive some of the greatest ornaments of our greenhouses and conservatories, are put. *Azaleas*, *Kalmias*, *Rhododendrons*, how beautiful are they all! and yet imbued with what dangerous properties. Verily, looking upon them, we may indeed say, their beauty is a snare!

**RHEUS.** The scientific name of the Red Poppy (*Papaver Rhæus*) which is one of our commonest wild plants; its petals are mucilaginous, bitter, and slightly narcotic, and are sometimes given in the forms of Infusion or Syrup, as an anodyne in the catarrhal affections of children; they are chiefly valued, however, for the colouring matter which they contain. See *Poppy*.

**RHOMBOIDERS.** A muscle of a rhomboidal shape, which, arising from the spinous process of the 7th cervical, and the 4 or 5 last dorsal vertebra, and being inserted into the base of the scapular, brings the latter upwards and backwards; it is commonly divided into the upper and lower portions, called *minor* and *major*.

**RHONCUS** (Greek *ronchos*, snoring). Morbid sounds emitted in respiration, and occasioned by the passage of the air through fluids in the bronchi, or partially contracted passages. It is sometimes called rattling in the throat. Laennec termed it *Râle*.

**RHUBARB.** This is one of our most useful and commonly used drugs, the chief supply of which is obtained from Turkey and Russia; it is produced abundantly on the elevated lands of Tartary, Thibet, and Bhotan, growing spontaneously wherever the seed is distributed in places favourable to its growth. The species of *Rheum* which produce the Rhubarb of commerce are believed to be *R. Palmatum*, *Undulatum*, *Raponiticum*, and *Australe*. The root is not considered fit for use until it is six years old. Some Chinese Rhubarb is imported

Europe, but this is of an inferior quality. Attempts have been made to cultivate the plant for medicinal purposes in this country, with very little success. Indian Rhubarb, which is a native of the Himalayas, has been most successfully cultivated for medicinal purposes, and its varieties now furnish an abundant supply of fruit for pies, puddings, and preserves.



The Rhubarb belongs to the natural order *Lygonaceae*. Its primary action is that of a mild purgative, but it has also tonic andstringent properties, so that its secondary effect is to confine the bowels; hence it is ill fitted for use in diarrhoea, but not in constipation, or any affection in which a continuous aperient action is necessary; it is ill fitted for inflammatory or febrile cases, though it seldom acts as an irritant; its emulating, combined with its aperient properties, render it valuable in atonic dyspepsia. Generally speaking it suits children and aged persons best. Where the bowels are sluggish, combined with ginger and a little soup, it makes an excellent dinner. The ordinary dose of the Powder is from 20 to 30 grains. Some persons have objection to chew the root, and to such have not, this is a very good way of taking

The following are the principal official preparations into which Rhubarb enters:—  
*Compound Rhubarb Powder*, sometimes called *Gregory's Powder*, (which see).

*Compound Rhubarb Pill*. Dose, 10 to 20 grains.

*Extract of Rhubarb*. Dose, 10 to 30 grains.

*Infusion of Rhubarb*. Made by macerating 3 drachms of the sliced root in a pint of boiling water for 2 hours. Will not keep. Dose, a wineglassful.

*Tincture of Rhubarb*. One of the best cordial stomachics known. Dose, 1 drachm to 1 ounce.

*Syrup of Rhubarb*. Excellent for young children. Dose, 1 to 2 drachms.

There are also an immense variety of medical compounds, of which Rhubarb forms an important ingredient. Mixed with Grey Powder, it is an excellent remedy for the irritation of the bowels, common with children when teething. As a common aperient for the young, it is best given combined with magnesia. With both children and adults it has the property of communicating a deep tinge to the urine; this should be known, as the change of colour in the secretion of the kidney may occasion alarm and misconception.

*Garden Rhubarb*, when used as food, has a slight aperient action upon the bowels. In some cases this may be beneficial, but not in all; those who have a tendency to relaxed bowels should not take it. Generally speaking, it is a wholesome and cooling article of diet; but, if too freely taken, will be likely to cause urinary irritation; it contains oxalic and mallic acid abundantly; hence its pleasant acidulous flavour.

*Rhein* was the name given by M. Vaudin to a substance procured by heating powdered Rhubarb with nitric acid, evaporating to the consistency of syrup, and diluting with water; it has been employed in continental practice, but never much in this country. *Rheinic Acid* is the acid contained in the stem of the garden Rhubarb; it appears to be identical with Oxalic Acid. The purgative principle of the medicinal Rhubarb has been called *Rhubarbarin*.

*Rhus*. The name of a genus of plants, of the order *Anacardiaceae*, in which is the *R. Toxicodendron*, or Poison Oak, the leaves of which are very poisonous in large doses; they act in much the same manner as strichnia, and are sometimes given to arouse the nervous system in cases of local paralysis; also in obstinate skin diseases and chronic rheumatism: the dose of the Powdered Leaves is from 1 to 8 grains; of the Extract 1 grain; of the Tincture 5 drops, gradually increased; the forms of these are given in the Paris Codex.

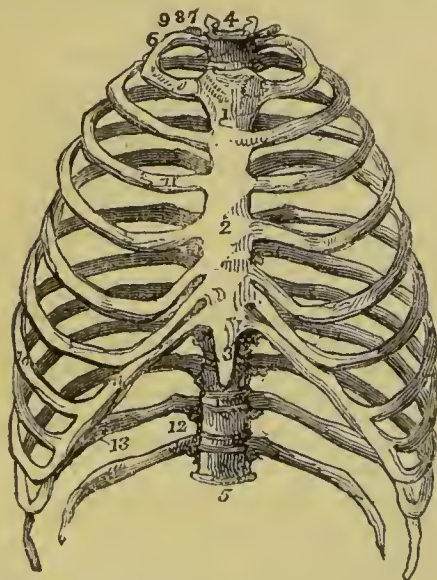
*RHYTIDOSIS* (Greek *rytidos*, to grow wrinkled.) A state of the cornea in which it collapses so considerably, without its transparency being affected, that the sight is much impaired, or quite destroyed. See *Eye*.

*Ribs* (in Latin *costa*, from *custodio* to guard.) These bones form the chief defence of the lungs, heart, and other im-



and therefore well deserve this title; they are divided into, 1st, the *True*, or *Sterno-Vertebral*, consisting of the upper 7 pairs, and so called because they are united by their cartilages to the sternum; 2nd, the *False*, or *Vertebral*, the remaining 5 pairs, which are successively united to the lowest true Rib, and to each other. The vertebral or back extremity of a Rib—that part which joins the vertebra, is called its *head*; the contracted part which joins it, the *neck*; at the back of the Rib is the *tubercle*; the outward part which bends forward is the *angle*; from which proceeds the *body*, passing forwards and downwards to the *sternal extremity*.

We thus see that the Ribs are twelve in number on each side, and a glance at the accompanying diagram will show what an



admirable ease they form for the viscera of the chest, of which this gives an anterior or front view: No. 1 is the superior portion of the sternum, or breast bone; 2 is the middle, and 3 the lower portion of the same—this is called the *Ensiform cartilage*; 4, is the first dorsal vertebra, or joint of the back bone; and 5 is the last joint of the same with which the Ribs are connected; 6 is the first Rib; 7 marking its head, 8 its neck, which rests against the transverse portion of the dorsal vertebra, from which it springs, and 9 its tubercle. The bones, it will be seen, continue to project gradually further and further, until they get to the 7th, or last true Rib (10), which is joined to the sternum by what is called the costal cartilage (11), to a continuation of which

are attached all the false Ribs, except the last pair (12), which are called floating Ribs; these are shorter than the true Ribs, and free at their extremities. Each Rib presents an external and internal surface, the former being convex, and the latter flat; it is curved to correspond to the arch of the thorax, and twisted, so that when laid on a horizontal surface, one end is lifted up; the upper border of each Rib is rounded, the lower sharp and grooved, its inner edge (13) for the attachment of the intercostal muscles. The whole arrangement bespeaks that nice adaption, of structure to special uses, which marks all the works of the all-wise Creator, and which is no where more conspicuous than in the human frame. Here we have a beautiful combination of lightness, with strength sufficient to resist great pressure; the muscular and cartilaginous attachments of the bones allow of sufficient expansion for the play of the lungs, heart, &c., the force and regularity of whose movements can be distinctly seen by the rising and falling of the chest. For further particulars on this head see *Skeleton*. For treatment of *Fracture* of the Ribs see that head.

RICE. No grain, not even wheat, is more valuable to the human family than this, which, it has been asserted, affords sustenance to about three-fourths of the



habitants of the globe. The plant producing it belongs to the natural order *Gramineæ* or Grasses, and is scientifically termed *Oryza Sativa*. Whether it originated in India or Ethiopia is a matter of doubt but it has now spread over the tropical and sub-tropical regions of both hemispheres.

are now as many as 20 varieties of the plant known, and for all much moisture is necessary of existence. The seed of the plant, deprived of its husk, is the Rice of commerce, before it is husked it is called *Paddy*. As an article of food, Rice is nutritious, easy of digestion, and therefore suited for weak stomachs; having no laxative properties, it suits those in whom there is a tendency to diarrhoea. In this country, it is used rather as an article of luxury than as a common aliment, although its use of late years has very much increased, especially since the spread of the potatoe disease, this grain being often taken as an accompaniment to meat instead of that vegetable. According to the analysis of Bryancon, Carolina Rice, which is the best, contains 85.07 per cent. of starch, 3.60 of gluten, 0.71 of gum, 0.29 of uncrystallizable sugar, 0.13 of fixed oil, 4.80 of vegetable fibre, 5.00 of water, 0.40 of saline substances. The small quantity of gluten which this grain contains prevents its being made into bread; it rapidly swells and softens under the influence of heat and moisture, and thus it is easily prepared for food, no grinding or baking process being required; it is therefore the food best suited for the people of tropical climates, not only because so little labour is required in preparing it, but also because it is easy of digestion, and is not heating and stimulating. That it contains all the ingredients necessary to build up a robust and hardy frame, may well be doubted, and perhaps the manifest inferiority in energy, and power of endurance, of the Asiatics, and other rice feeders, to the Europeans, and those who live chiefly on wheat, oats, and barley, which have more gluten in their composition, may be as much attributable to the character of their food as to the enervating influence of climate.

For young persons and invalids, nothing is so good in the way of puddings as those made of Rice. When intended to correct a tendency to relaxed bowels, it should be used ground. At all times care should be taken to have it well cooked, as it is indigestible if not so. Where there is an irritable state of the stomach and bowels, *Rice Water* is good taken as a drink. It may be prepared in the same way as Barley Water with this grain instead of barley; a little Lemon peel may be added to improve the flavour, and Gelatine or Isinglass to render it more binding.

**RICINUS.** This is the generic name of the *Palma Christi*, the plant whose seeds yield, by expression, *Castor Oil*, (which see).

These seeds are supposed to resemble the tick, in Latin *ricinus*, hence the term applied to the plant.

**RICKETS.** Derived, according to Dr. Good, from the Saxon *rieg* or *rick*, a heap or hump, particularly as applied to the back, hence *ricked*, or *ricket*, means hump-backed. This is a disease in which the bones have not their due proportion of earthy matter, and are, consequently, too soft and flexible to support the frame and perform the functions assigned to them. The cause is, sometimes, defective nutriment; the food has not in it a due proportion of nitrogenous matter; or it may be owing to the presence of scrofula in the system, or indeed, it may be, by breathing impure air, and living in damp, dark habitations, or by hereditary taint. Rickets in children will generally be manifested when the first attempts to walk alone are made, the limbs twist and give way under the weight of the body, and there is no power of guidance; there will then, too, generally, be languor and palor, with loss of flesh and tumidity of the belly, and other indications of scrofula. Cod Liver Oil, good nourishing diet, chiefly Milk, Change of Air, Sea Bathing, and such means of invigorating the system, are the proper remedies. Attention should be paid to any apparent distortion of the limbs or spine, and means taken to correct such tendencies, or they will become permanent. Young females under treatment for Rickets should be lying down as much as possible, lest the pelvis should become distorted, and incapacity of child-bearing ensue. For further account of treatment, see *Scrofula*.

**RIGOR** (Latin *rigeo*, to be stiff). The shivering which precedes the inflammatory stage of any disease, especially fevers, is so called; it sometimes occurs in states of the body in which there is neither fever nor inflammation, and is a common symptom of a bilious attack; it also occurs during the passage of gall-stone or gravel, at the commencement of labour, and it may be excited by certain sounds of a rough or grating character, such as are said to "set the teeth on edge." This renders it probable that the sensation is a purely nervous one, a kind of alarm signal of something unpleasant or dangerous impending.

**RIMA** (Latin for a fissure). Hence the term *Rima Glottidis*, applied to a fissure of the glottis, the opening between the *chordæ vocales*.

**RING FIXED.** For directions for removing a ring, which has become fixed on



joint or skin, see *Finger*.

**RINGWORM.** The common designation of a kind of skin disease called by Bateman *Herpes circinatus*. It appears in small circular patches, in which the vesicles arise only around the circumference. Ringworm of the scalp, or Scalled Head, which is the *Porrigio scintillatu* of Bateman, appears in distinct, and even distant patches of an irregularly circular form upon the scalp, forehead and neck: this is sometimes distinguished as *pustular* Ringworm, the first named kind being *vesicular*.

The latter form is the most obstinate and troublesome, in it the scaly pustules are clustered together in elevated patches; a roughness and discolouration of the skin generally precedes the appearance of the pustules, which are of a brown tint in one variety, of a straw colour in another; in the latter case the scales or crusts after a while fall off, leaving a number of small cap-shaped ulcers, clustered together like honey-comb; these spread very quickly, sometimes involve the whole scalp, and even extend to the neck and forehead.

Ringworm has its seat in the roots of the hair, and is believed to be attended by the growth of parasitic fungi; its predisposing causes are any derangement of the general health from ill or under feeding, breathing impure air, drinking bad water, uncleanly habits, serofula. Its immediate or exciting cause is generally contact with those affected with it, or using combs or hair brushes which they have used.

Mr. Erasmus Wilson, who remarks "that improper food is a frequent predisposing cause, and that he has observed it in children fed too exclusively on vegetable diet," recommends in the way of *treatment* that as soon as the irritation appears to be subdued by soothing means, such as Warm Poultices, &c., an Ointment composed of 1 drachm of Sulphate of Zinc to 1 ounce of simple Cerate, using also a Sulphate of Zinc Lotion. The head, from which the hair has been previously removed, by shaving or close cutting, should be washed with soap once a day, and after being dried, anointed with Pomatum so as to keep the scalp moist with oleaginous matters. Dr. A. Thomson says "that the application which he has found most beneficial is a Solution of 1 drachm of Nitrate of Silver in  $\frac{1}{2}$  an ounce of Diluted Nitric Acid. The diseased circles, after the scalp has been shaved, to be pencilled over with the Solution, and in 10 or 15 minutes afterwards the parts should be well sponged, first with tepid water, and then covered with pledgets of lint

dipped in cold water, and the evaporation diminished by covering the wet linen with oiled silk." He also says, "that in India an Ointment composed of a drachm of Powdered Nut Galls, a scruple of Sulphate of Copper, and an ounce of Simple Cerate, is said to prove most beneficial."

Indeed, almost any astringent application will be found serviceable in this disease. We have seen Pyroligneous Acid used with great advantage, and Black Ink, which contains Galls and Sulphate of Iron. Tar and Creosote, are both recommended, and may be serviceable; but they are disagreeable applications, the former especially so, and certainly not better than many others which have not this objection; we should recommend their being used only as a last resource when the disease is very obstinate, as is sometimes the case. Rubbing the raised parts lightly with Sulphate of Copper, previously moistened, or washing them with a strong Solution of Nitrate of Silver, or Concentrated Acetic Acid, are the local applications on which we are disposed to place most confidence; and for general or constitutional treatment we would recommend a tolerably generous diet with Quinine or Iron tonics, after the system has been cleared by a course of mild aperients and alteratives, such as Rhubarb and Grey Powder, say three doses, according to age, one any other night, using every other means that may suggest themselves to strengthen and invigorate the patient.

The vesicular form of Ringworm is the simplest and most amenable to treatment, sometimes it disappears after careful washing and poulticing, with, perhaps, a few applications of any astringent lotion; but the pustular form is far more troublesome and intractable, spreading often very rapidly, and running into ulcerous sores, and sometimes reappearing when it is thought that a cure has been effected. Nothing but the greatest care and attention will then eradicate it. Any child afflicted with this disease should be separated from other children, on account of its contagious nature; wearing each others caps and bonnets will be likely to spread it through a whole school.

**RISUS SARDONICUS.** A species of convulsive laughter, sometimes, especially in children, closely resembling a natural and healthy smile, but more frequently amounting to an absolute distortion of the face; it is caused by some uncontrollable action of the risible muscles, and has no doubt a nervous origin.

**RIVER BATHING.** This is not so salutary as Sea Bathing, and should not be indulged

to anything like the same extent, unless, of course, it is a tidal River with salt water, in which the saline particles have a stimulating effect upon the skin, causing that pleasant glow which is indicative of healthy re-action: in the absence of the salt this effect may be partially produced by friction, which should always be vigorously employed after Fresh-water Bathing.

**ROASTING.** This is one of the primitive methods of cooking meat, and, if properly done, it is perhaps the best; during the process, much of the fat which renders meat indigestible is melted out, and the watery parts are evaporated; coagulation of the albumen takes place, and the gelatine, much of which in boiling is lost, is in this case retained. Over-roasting, however, impairs the nutritive properties of meat, which, when underdone, if more nutritious, is certainly less digestible. Liebig, in his *Chemistry of Food*, recommends that the joint to be Roasted should be enveloped with a covering of lard; by this means, he says, "the sapid constituents of the flesh by its juices, and the evaporation of the water, which causes hardening, are prevented, and the surface, as well as the subjacent parts, are kept in the tender state which is otherwise only found in the inner portions of large masses of flesh." If the joint is kept well basted the effect will be the same.

**ROBORANT** (Latin *roboro*, to strengthen). An old term for a strengthening medicine.

**ROCHE ALUM**, or **ROCK ALUM**. A variety of the Sulphate of Alumina, originally brought from Rocco, formerly called Edessa, in Syria; it has a reddish tint, but does not differ in its properties from the common sort, an artificially-coloured preparation of which is generally sold under the above name. See *Alum*.

**ROCHELLE SALTS.** The Tartrate of Potash and Soda used medicinally as a mild aperient: it was first found in a native state at Rochelle, hence its name; it has not the nauseous taste of the Epsom or Glauber Salts, and is therefore useful in cases which require a saline aperient, and in which they cannot be taken; it forms the active component of Sedlitz Powders, and may be safely given to children with Infusion of Senna; the dose is from 1 drachm to 1 ounce; it is well suited for cases of calculus, jaundice, and puerperal fever. See *Soda*.

**ROLLER.** A long broad ligature used in surgery for keeping the parts of the body in their proper places. See *Bandages*.

**ROS CALABRINAS** (Latin for Dew of Calabria). An old designation for the *Official Manna* (which see).

**ROSA.** The name of a genus of plants of the natural order *Rosacea*. Three species of this genus are used medicinally, viz., the Dog Rose (*Rosa Canina*), which is found growing wild in our hedges, and of which a cut will be found at p. 6, where we have alluded to the fruit under their common name *Hips*. The Confection of this fruit, which is acidulous and refrigerant, is sometimes given diarrhœa and dysentery. The Cabbage or Hundred-leaved Rose (*Rosa Centifolia*) is that of which Rose Water is made, either by distillation from the leaves; or by mixing with water the volatile oil previously obtained by distillation; it is an agreeable vehicle, much used in lotions and collyria; from the petals also a Syrup is



sometimes made, which is slightly laxative. From the Damascus Rose (*Rosa Damascena*), a variety of this species, is obtained the delicious perfume Otto, or Attar of Roses, so celebrated through the East, and valued in all civilised lands. The Red or French Rose (*Rosa Gallica*) it is whose petals are used for making the Infusion of Roses, which is an elegant vehicle for many active remedies, and is given with advantage in the sweats of phthisis, and with additional acid, and Nitrate of Potash, in uterine and pulmonary hæmorrhages, and used topically as a gargle in throat affections which require an astringent application. *Honey of Roses* is also prepared from the leaves or fresh buds of this species which, mixed with Borax, it is a good application for the mouth in aphthæ or thrush.

*Infusion of Roses* is made as follows:—



Dried Rose Leaves, 5 drachms, on which pour boiling Water 1 part; then add dilute Sulphuric Acid,  $1\frac{1}{2}$  drachms; macerate for half an hour in a covered vessel; then strain, and add lump Sugar 6 drachms.

ROSAIC ACID was the name given by Proust to a peculiar acid, which was said to exist in the lateritious sediment deposited from the urine in some stages of fever.

ROSALIA was the ancient and classical term for the disease now called *Scarlatina* (which see).

ROSEATE POWDER. A depilatory composed of 1 ounce of Orpiment and 10 ounces each of Quick lime and Starch: said to be good for removing superfluous hair from any part of the body, but dangerous to use on account of its poisonous nature. See *Depilatory*.

ROSEMARY. The *Rosmarinus Officinalis*, of the natural order *Labiatae*, is a plant whose flowers and tops are sometimes used medicinally; they have a fragrant odour and bitter taste, and stimulant and carminative properties, and make an agreeable addition to more active medicines; the dose of the



Oil is from 2 to 3 drops, as a carminative; the Spirit is sometimes added to lotions and liniments.

ROSEOLA or *Rose Rash* is a rose coloured efflorescence on the skin, generally of a

circular or oval shape, without wheals or papulae, occasionally fading and reviving it is non-contagious. Bateman distinguishes seven distinct species, which we will not particularize, as the difference between them is not essential. Rose Rash most commonly occurs in children, it is not dangerous, and seldom requires any medical treatment beyond a little cooling aperient. We may here remark that the term *Rosy Drops* has been applied to the *Aene Rosacea* of Bateman, commonly called Carbuncle Face. (see *Aene*;) and that *Rose* was an old popular name for *Erysipelas*, (which see).

ROSIN. A substance obtained from different species of pines. See *Resin*.

ROTATOR (Latin, *rotata* wheel). A muscle whose office is to turn or wheel about the thigh.

ROTULA (Latin, *rota* a wheel). Literally a little wheel: applied to the Kneecap. See *Patella*.

ROUGE. A pigment formerly much used for painting the cheeks; it was commonly prepared from the dye called Safflower. The artificial colour now generally employed is Carmine.

ROUSSEAU'S DROPS. A nostrum for coughs and all complaints which require an anodyne; which was at one time in high repute, especially in France, it was made thus:—Honey 12 ounces, warm Water 3 pounds; boil together: then add:—Opium 4 ounces, Water 12 ounces, Alcohol 41 ounces, previously digested together and filtered.

ROYAL STITCH. The name of an old operation for the cure of bubonocoele; it consisted in putting a ligature under the neck of the hernial sac, close to the abdominal ring, and then tying that part of the sac, so as to render it impervious by the adhesive inflammation thus excited.

RUBEDO (Latin *rubeo*, to be red). A diffused redness like that of blushing, observable in some kind of *Skin Disease*.

RUBEFACIENT (Latin, *rubefacio* to make red). A substance which, when applied to the skin, produces redness without blistering; it excites pain and inflammation, but in an inferior degree; no vesicle is raised and no fluid discharged; it is useful to allay local inflammation. The most commonly used Rubefacients are Ammonia, or Hearts-horn, Friction or Heat, Mustard, Spirits of Wine, or Turpentine.

RUBEOLA (Latin *rubor*, red). An eruption of crimson stigmata, or dots grouped in irregular circles or crescents, occurring for four days, and terminating in minute furfaceous scales. Bateman distinguishes

three species of this disease, which he calls severally Common, Imperfect, and Black Measles (which see).

**RUBULA** (Latin *rubus*, a blackberry). A name applied by Dr. Good, as more elegant and appropriate, to the disease commonly called *Frambesia* or *Yaws* (which see).

**RUE**. The *Ruta Gracilens* of botanists, belonging to the natural order *Rutaceæ*, was of old valued for its medicinal properties, although it has now fallen very much into



disuse. Ordinarily it acts as a stimulant and antispasmodic; but in large doses it is narcotic, so much so that cases of poisoning by the plant have occurred. It is useful in some kinds of hysteria, but is more especially so in flatulent colic, administered by the mouth, or as an enema. It is likewise employed as an emmenagogue, and has been found useful in infantile convulsions; it is also given as a vermifuge. The dose of the Powdered Leaves is from 10 to 20 grains; the Fresh Leaves are more active, the expressed juice of them may be given in  $\frac{1}{2}$  drachm doses; of the Oil rubbed up with Sugar and Water, from 2 to 5 minims is the dose; of the Confection, from 1 scruple to a drachm; of the Tincture, from  $\frac{1}{2}$  to a drachm (for adults); of the fresh Juice, from  $\frac{1}{2}$  to a drachm (for children.)

**RUM**. This is the spirit obtained by distillation from the juice of the sugar cane; when genuine, it contains about 53 per cent. of alcohol. When new, this spirit is sometimes impregnated with lead from the worm of the still in which it has been made; in this case it may give rise to symptoms of colic. Rum is often recommended to be taken for colds, but we do not

believe that it possesses any advantages over other alcoholic stimulants, the use of which is often more likely to do harm than good, by increasing inflammatory action.

**RUMEX**. The name of a genus of plants of the natural order *Polygonaceæ*, some species of which are remarkable for the acidity of their leaves; these are the Sorrels from which oxalic acid is obtained. See *Acetosella*.

**RUMINATION**. A voluntary regurgitation of food for further mastication, peculiar to the ox, sheep, and other animals having several stomachs; it is commonly called *chewing the cud*.

**RUPIA** (Greek *rupos*, filth). Sordid Blain. An eruption of flat distinct vesicles, with the base slightly inflamed; containing a serous fluid; scabs accumulating sometimes in a conical form, easily rubbed off, and soon reproduced. Bateman distinguishes three species, Simple, Conical, and Cachectic Rupia. The disease often originates in a debilitated constitution, sometimes in syphilis. See *Skin Disease*.

**RUPTURE** (Latin, *rumpo*, to break.) A protrusion of some part of the abdominal viscera, but principally the intestines. Under the head of *Hernia* (which see) we have already described the different kinds of rupture which are likely to occur. We will now speak of the general symptoms and mode of treatment; and before doing this, let us again call the attention of our readers to the four chief varieties of Rupture:—1st, *Inguinal*, which is in the groin above the fold, in such a position that it would be intersected by a line running from the hip to the pubis. 2nd, *Femoral*, which is below the fold of the groin, at the upper part of the thigh. 3rd, *Naval*, or *Umbilical*. 4th, *Ventral*, occurring at the side or middle of the belly, below the navel. The first of these is the most common form of Rupture; next in frequency is the second; the third is not uncommon with children at birth; nurses call it “starting of the navel;” (the proper treatment is described under the heads of *Infant* and *Navel*). This also sometimes affects stout elderly persons, especially females who have borne many children. It has been clearly established that about one out of every ten men is ruptured; in women the proportion is not nearly so great, as their avocations generally involve less muscular exertion. With them the femoral form is most common.

*Symptoms and Treatment*.—A swelling, probably at first very small, shows itself in one or other of the situations above named.



It is not painful, nor are there signs of inflammation about the spot; if it recedes on pressure, or on a recumbent position being assumed, the patient may be pretty sure that it is a Rupture; if, on pressing it back, there is a gurgling noise, it contains intestine only, but when omentum also is projected, there will be a solid doughy kind of feel. Persons are often ruptured for some time without being aware of it. They will perhaps experience uneasy sensations about the pit of the stomach, a kind of dragging, with slight nausea; on their having occasion to make some great exertion the hitherto undiscovered lump will become more prominent, and force itself upon the attention, and there may, or may not be, sickness and vomiting until it is returned into the abdomen, which it generally can be with a little careful manipulation. The object then is to secure such an amount of pressure over the orifice of escape as to prevent its protruding again; and this can only be done by a truss of some kind. The patient is never safe without one; and, as it is of the utmost consequence, both to the comfort and safety of the wearer, that the instrument should be exactly suited to the case, it is best to resort at once to an experienced surgical mechanist for a supply of this essential article. Under the head *Truss* we shall speak more fully of the different forms recommended, and modes of application. At present we confine ourselves to some directions for the treatment of Hernia, apart from those connected with the instrument to be worn. First, then, the part should be sponged night and morning with cold water, and if it gets chafed or abraded, it should be dusted after each sponging with Starch powder or Flour. A regular action of the bowels is essential to the safety of ruptured persons, as the violent medicines necessary to relieve a state of costiveness will be likely to increase the Rupture to a dangerous extent. Castor Oil, or some other gentle aperient, should be taken as often as may be necessary to ensure a daily motion without much straining.

One of the tendencies of this affection is to cause a deficient action of the bowels, and when these are much confined, and there is a sense of constriction about the middle, and vomiting of feculent matter, an examination should always be instituted, to ascertain if Rupture has not originated this train of symptoms. It may happen with ruptured persons who do not wear a truss, and also with those who do, if the instrument is not quite suited to the case, that

the protruding gut or omentum may become so large that there is much difficulty in getting it back, or reducing the Rupture, as we should say; if the patient cannot, by lying down on his back, and gently pressing it up through the aperture, accomplish this, the aid of a surgeon should be obtained, if possible: should it not be, a warm bath may be first tried, keeping the patient in until he feels faint, so as to relax the muscles; he should, during this time, repeatedly renew the efforts above directed. If this fails, apply pounded ice, in a bladder, to the part, or a freezing mixture, composed of Table Salt, Saltpetre, and Sal Ammoniac, in equal proportions, with a little water added, just enough to make it liquid. If neither of these can be readily obtained, intense cold may be produced by means of wet rags laid over the swelling, and evaporation encouraged by a continual stream of air from a pair of bellows directed upon the rags, which should be frequently rewetted.

Sometimes the return of the Rupture may be accelerated by a reversal of the position of the body, placing it on an inclined plane with the head downwards. Bleeding to faintness while standing up, and then lying down, has sometimes succeeded, but, of course, only a surgeon could attempt this. Should all means fail, we have what is called *Strangulated Hernia*, and an operation is necessary; this is always attended with considerable danger. When Rupture of the groin occurs with young children, nothing can be done for the first three months or so, but to keep the child as much as possible in a recumbent position, and sponge the part frequently with cold water; at the end of the above period a light instrument may be worn (see *Trusses*), with every prospect of a cure, if proper attention is paid to the case. When a person about forty years of age becomes ruptured, there is little chance that a cure will be effected, although by constant pressure on the part, with an avoidance of violent exertion, the size of the Rupture may be greatly reduced.

Rusks are a kind of light cake made of fine flour, highly baked; like biscuit powder, and tops and bottoms, they make an excellent infant's food; they should be boiled in water for a quarter of an hour, then, after the water has settled and been poured off, rubbed through a sieve, warmed up again with a little milk, and sweetened slightly.

**RUSSIAN BATH.** This is a sudden transition from a hot Vapour Bath to a cold plunge, or pumping on the body; it has been sometimes recommended as highly

invigorating, but would not do for persons in delicate health, and should never be resorted to unless under medical advice.

**RYE.** This is one of the *Gramineæ* or grasses, whose cultivation has been of inestimable benefit to man; its botanical name is *Secale Cereale*; it produces a nutritious flour containing less bran and more farina than that of wheat, than which however it is darker in colour. It is not so nutritious as wheat; but, to the hardy dwellers in northern countries where it grows freely, it furnishes excellent food; it is said to have the property of slightly stimulating the action of the bowels. Much spirit is distilled from this grain, which dried and roasted when ripe, is sometimes used instead of coffee; when peculiarly affected by a disease, it becomes decidedly medicinal. See *Ergot*.

S or SS is put on prescriptions immediately after a quantity, for the Latin *semis*, a half: thus,  $\text{℥}iiss$  signifies an ounce and a half.

**SABADILLA**, sometimes called *Cevadilla*. A name given to the small brown foliicles and seeds of two plants, viz. the *Veratrum Sabadilla*, and *Asagraea Officinalis*, of the first of which we give a cut. They both belong



to the natural order *Melanthaceæ*; their seeds are very bitter, and contain an acrid principle, called *Veratrine* (which see); these seeds act as drastic purgatives and emetics, and are sometimes given to expel worms; they are highly poisonous, and

should be administered with great caution; the ordinary dose is from 5 to 10 grains in powder. Veratrine is sometimes alluded to under its original name of *Sabadilline*.

**SABATIA ANGULARIS**, or *American Gentian*, belongs to the natural order *Gentianaceæ*; it resembles the other gentians



in its bitter taste, and its tonic properties. It is popularly used in America, where the plant is very plentiful, as a remedy in fevers, both intermittent and remittent; although not so active as cinchona, it is useful for promoting appetite, and assisting digestion in convalescence from any kind of sickness.

**SACCHARUM.** Latin for *Sugar* (which see). *Saccholaetic* or *Sacclactic* is a compound of the above term, and *lac*, milk. It is applied to an acid which was first obtained from the sugar of milk; it is now generally called *Mucic Acid*. Its salts are *Sacclactates*.

**SACculus.** Diminutive of the Latin *saccus*, a bag. Applied to the minute vesicular bags, constituting the adipose membrane or tissue: these vesicles have been called the *Membranous sacculi*, and the *Sacculi pinguedinosi*. See *Fat*.

**SACER** (Latin for *sacred*). A term formerly applied to certain diseases which, on account of the suddenness of their attack, were supposed to be inflicted direct from heaven; such was the *Sacer morbus*, or *Epilepsy*, and the *S. ignis*, or *Erysipelas*.

**SACRUM** (Latin for *sacred*). This term is applied to the bone which forms the basis of the vertebral column (see *Pelvis*), because



it was in ancient times commonly offered in sacrifices to the gods. A muscle arising from this bone, and the roots of the transverse processes of the lumbar vertebrae, which is inserted into the inner and outer sides of the ribs, is called *Sacro-lumbalis*.

**SAFFLOWER**, or Bastard Saffron, is the flower of the *Carthamus Tinctorius*, of the natural order *Compositae*; a native of Egypt and the Levant. It furnishes two very important principles in dyeing, one of which is called *Carthamine*, or *Carthaminic Acid*, which is a beautiful rose colour, and prepared with finely-powdered tale, forms rouge, sometimes used to restore the faded



bloom of ladies' cheeks. Safflower has been employed in domestic practice as a substitute for saffron, to promote the eruption in measles, scarlatina, &c. The seeds are slightly purgative, and have been found beneficial in dropsy.

**SAFFRON**. The drug so called is the stigmas of the *Crocus Sativa*, described and pictured under the head *Crocus*. It is sold in the shops in the form of a dark-coloured moist cake, but more commonly dry, resembling dark yellow threads. It was at one time a favourite stimulant and antispasmodic, and is still often given in the early stages of measles and scarlatina, under the impression that it will hasten the eruptive process. It is chiefly used, however, as a colouring ingredient for pastry, confectionery, and liqueurs; it is also given to cage-birds when they are moulting, or otherwise sickly, a few threads being infused in the water which they drink.

**SAGE**. The common garden Sage (*Salvia Officinalis*), of the natural order *Labiatae*, is a plant possessed of tonic properties, as its aromatic odour and bitter taste indicate; an Infusion made of its leaves and



flowering tops is often taken under the name of Sage Tea, and is tonic and astringent; as a gargle, with Vinegar, or Honey and Alum, it is beneficial in inflammation of the throat or relaxed uvulae. The volatile Oil, with which the plant abounds, is sometimes prescribed in doses of 1 or 2 drops, and is also used as an ingredient in embrocations for rheumatism; preparations of the plant are used to abate the sweating in hectic fever. the dose of the powdered Leaves is from 20 to 30 grains.

Another species of Sage, called *S. Sclarea*, commonly called *Clary*, has a pleasant odour, much like that of Balsam of Tolu, and is used for seasoning soups, &c.; it has antispasmodic and cordial properties,

**SAGAPENUM**. This is a gum resin, yielded either by the *Ferula Persica* or *F. Szowitziana*, both umbelliferous plants. It takes an intermediate place between assafoetida and galbanum with regard to its stimulant properties and garlicky odour. It was formerly held in considerable estimation as beneficial in asthma, hysteria, hypochondriasis, and as an emmenagogue, but is now nearly discarded from modern practice.

**SAGITTALIS** (Latin *sagitta*, an arrow). A name given to the arrow-like suture of the *Cranium* (which see).

**SAGO.** This is a kind of fecula prepared from the pith of several species of palms, especially those of the genus *Sagus*, and more especially of that particular species called by botanists *Sagus Lavis* (see cut),



which grows about 30 feet high, and from 18 to 20 feet in diameter, forming immense forests in nearly all the Moluccas. Each tree is said to yield from 100 to 800



pounds of this nutritious farina, which is invaluable as a light wholesome diet for invalids and children. The granular form is

imparted to it by passing it when half dry through a coarse sieve. The process of refining and imparting to it a pearly lustre is a Chinese invention; thus prepared, it is called Pearl Sago. This is a more elegant, but perhaps not a more nutritious form of the article than the browner and coarser kinds. Sago is made into puddings, boiled in milk, and cooked in a variety of ways; it is nearly a pure *Starch*, and will be again alluded to under that head. The Prickly Sago Palm (*Sagus Rumphii*) is the tree which yields the sago commonly eaten by the natives of India. Of this we also give a cut.

**SALACINE** (Latin *salix*, a willow). This is a peculiar bitter principle discovered in the bark of several kinds of willow trees, and also in that of the poplar; in its properties it resembles quinine, for which it has been used as a cheap substitute. It does not, however, exert so decidedly specific an effect in intermittent and neuralgic affections as quinine, although, as a simple tonic, it is in many cases more excellent, because less likely to heat and cause headache. When the alkaloid in a prepared form cannot be obtained, an Infusion of the willow-bark may be given. The dose of the Salacine, as a febrifuge, is from 10 to 20 grains; as a tonic, 2 grains will be sufficient; in Sherry Wine, if a stimulant is required. An ointment made of the leaves of any kind of *Salix* has been recommended as a dressing for foul ulcers. See *Willow*.

**SALEP.** This is a substance much used as a nutritious food in the East, and to some extent also in this country; it consists almost entirely of a peculiar gummy substance called bassorin, and starch, and is considered to be more nutritious than either sago or arrow-root; well prepared, it is, no doubt, one of the best articles of diet that convalescents can use. From the common meadow and male Orchids, and some other species of British Orchids, it is said that Salep may be prepared equal to that which is imported. The method of making it has been thus described by Mr. Moulton in the "Philosophical Transactions:" The best time to gather the tubers is when the seed is formed, and the stalk is going to fall, for then the new bulb of which Salep is made, is arrived at its full size. The new roots are washed in water, the outer skin removed, and then set on a tin plate, in an oven heated sufficiently to bake bread. In six, eight, or ten minutes they will have become semi-transparent, like horn, without any diminution of size. Then remove them from the oven, and place them in a room to



dry and harden, which they will do in a few days; or this process may be effected by the application of a slow heat in a few hours. The roots should then be powdered or ground in a mill, and put into canisters, and so kept dry.

**SALIFIABLE BASE** (Latin, *sal* a salt, and *fio* to become). Any substance which forms a definite compound with an acid, and which, when liquid, or in a state of solution, has an alkaline reaction. Lavoisier denominated the acid, of whatever kind it might be, the *salifiable principle*.

**SALINE DRAUGHT** is made with 1 scruple of Carbonate of Potash, 15 grains of Citric or Tartaric Acid,  $\frac{1}{2}$  a drachm of Essence of Cinnamon, 1 drachm of Syrup of Orange Peel, and 10 ounces of Water; shake up, and drink while sparkling; a wineglassful as a refrigerant. To make it effervescing, add the Acid after the draught is poured out, or a tablespoonful of fresh Lemon Juice. See *Beverages*.

**SALIVA**. The fluid secreted by the salivary glands, the chief constituent of which, according to Tiedemann, is muriate of potash; 7 parts in 100 is said to be the whole solid contents of this fluid, all the rest being water.

Of the *Salivary Glands* there are six in all, three on each side of the mouth; and from these issue what is commonly termed the *spittle*, or more properly, the *Saliva*, which, according to Dr. Wright, who performed a number of interesting experiments with the view of determining the influence of this substance on the digestive powers, "has the power of modifying, and to a certain extent of digesting, vegetable and animal substances." He also came to the conclusion, "that it has a more powerful action upon vegetable than upon animal matters; that acids or alkalies added to saliva diminish or destroy its digestive properties; that the presence of Saliva in the stomach is essential to healthy digestion."

By this we may learn how necessary it is when taking food to do so slowly, and with sufficient mastication, so that a due quantity of Saliva may be mixed, and swallowed with the food. It has been noticed by the above-named experimentalist that after a full meal the Saliva becomes more strongly alkaline, and that the effect of spitting it out instead of swallowing it, was to produce griping and other symptoms of acidity; leading to the inference that this excess of alkali is intended to neutralize the acid likely to be evolved in the process of digestion.

There can be little doubt that the indigestion which is so common in Ame-

rica, is in part attributable to the general habit of spitting, or wasting the salivary secretion, which has an important part to perform in the digestive functions, and which is thus diverted from its proper purpose. Excessive smokers in this country are also commonly dyspeptic, probably in a great measure from the same cause. It is very curious to notice, when hunger is excited by the sight and smell of savoury viands, how immediately an increase takes place in the flow of Saliva; then, as the common phrase has it, "the mouth waters," in anticipation of the masticatory process, and an ample supply of the fluid so necessary to its due performance, is ready. Under the influence of fear, and other powerful emotions of the mind, that secretion is much diminished, so that the mouth becomes parched, and dry. Any irritation of the stomach acts powerfully on the salivary glands, causing an increase of the secretion, which, being swallowed, probably assists in allaying that irritation. During sleep, the flow of Saliva appears to be nearly or altogether suspended, unless there is some active disease going on to stimulate the organs. The quantity of Saliva secreted during 24 hours has been estimated at from 15 to 20 ounces; but it is difficult to ascertain this with any degree of precision. By keeping them moist, and, as it were, lubricated, there can be no doubt that the Saliva greatly facilitates the movements of the organs of mastication and speech. The tartar, which collects about the teeth, is a deposit of earthy and animal matter from this fluid.

**SALMON**. This is one of the oily fishes, and is therefore somewhat indigestible, and unsuitable for invalids and delicate persons.



Eaten, as it sometimes is, when pickled in a state of partial decomposition, it is likely to act as a poison. When good and fresh it is nutritious to those who can digest it, and

no harm is likely to result from an occasional meal of it. See *Fish*.

**SALTPETRE.** This is the common name for the Nitrate of Potash, which is also sometimes called *Nitre* (which see), and *Potash*; when fused by heat, and run into moulds it is called *Sal Prunella*.

**SALT.** This term, as we have already shown, is applicable to saline matter generally; but in its common application we understand it to mean the muriate of soda, or common table Salt, which as a condiment, and used in moderation, is beneficial to man, who, in common with the lower animals, appears to have an instinctive desire for it. There can be no doubt that Salt greatly assists the process of digestion; it is one of the constituents of the blood, and of the body generally, and we find that where it is denied, the digestive powers are weakened, and the general tone of the system is impaired. It has also been observed, that those who do not take Salt are especially liable to worms in the intestines. Hence the desirability, if not the necessity, of insisting that children should eat a certain proportion with their food. On the other hand, if taken in excess, it is productive of mischievous results, as we have observed under the head of *Scurry*. As a medicinal agent, Salt occupies an important place; in some cases of convalescence we find an intense craving for it; and this should be indulged, but not to an immoderate extent, as it appears to have a tonic effect. It is sometimes administered as a domestic emetic in solution—2 ounces being dissolved in half a pint of warm water; occasionally, however, when so administered, it acts as a powerful purgative. Such a solution, thrown up as a clyster, destroys and brings away worms from the large bowels. Some advocate the use of Salt in the treatment of typhus fever and cholera, and some have even held it up as a panacea, or universal remedy; while there are not wanting those who attribute to its use nearly all the ailments to which man is liable. Into these theories we need not enter.

As an external application it exerts a tonic influence, and is highly beneficial in cases of debility, whether local or general. The Salt Water Bath braces and stimulates the system, and Warm Saline Bathing and rubbing is good for rheumatic affections, sprains, &c.; if prepared artificially, about a pound of Salt to three Gallons of Water is a proper average strength. The "Brandy and Salt," so highly vaunted some years since, is, no doubt, an excellent stimulant application, but not better than many others.

With regard to the preservative properties of Salt on animal substances, we may observe that the chemical change which it effects in the juices of the meat, to which it is applied, considerably modify the nutritive properties, and render it less fit to nourish and sustain life; hence fresh meat is better than that which is preserved by salting, which should never be taken as a staple article of diet if it can be avoided.

**SALTS.** (Latin *Sal*.) A salt may be described as a definite compound of an acid, with an alkali or a salifiable base. Salts are very numerous; a mere list of their Latin and English names would occupy several pages of our space, and to no good purpose. A few brief remarks, however, upon their general characteristics and particular uses will be necessary. First then, let us observe that they are distinguished by certain significant prefixes, as thus:—*Super* denoting excess of acid in general, as Supernitrate of Potash; *Sub* denoting excess of the alkaline base, as Subborate of Soda. *Bi* denoting two equivalents of acid, as Bisulphate of Potash; *Quadr* denoting four equivalents of acid, as Quadroxalate of Potash; *Sesqui*, one equivalent and a half of acid, as Sesquicarbonate of Ammonia; *Oxy*, denoting the presence of a perfect oxide, as Oxymuriate. Salts are also distinguished according to their affinity for water, the effects of heat, the proportion of their compounds, &c.: thus *Deliquescent Salts* are those which attract moisture from the air, and soon become liquid; such as the Nitrates of Lime and Magnesia. *Efflorescent Salts* are those which lose a portion of their water of crystallization and fall into powder by exposure to the air—such as the Phosphate and Sulphate of Soda; by the application of a strong heat the whole of the water is expelled, and the salt, if soluble, is dissolved, undergoing what is called watery fusion. *Decrepitating Salts* are those which burst, when heated, with a crackling noise, into smaller fragments, such as the Nitrates of Barytes and Lead. *Neutral Salts* are those in which the base is perfectly saturated with the acid. *Double Salts* are those which are composed of one acid and two bases, or two acids and one base; or of two different acids and two different bases; these were formerly called *Triple Salts*.

Another mode of distinguishing Salts is according to the process of preparation; thus Common Salt, which is properly a Muriate of Soda, is procured by evaporation from sea-water, or from the produce of brine springs. *Essential Salts* are procured from the juices of plants by crystallization. *Fixed*



*Salts* are prepared by first calcining, then boiling the matter in water, straining off the liquor, and evaporating the moisture, when the salt remains in the form of a powder.

*Volatile Salts* are procured chiefly from animal substances, or the fermented juices of plants. By the term *Salts* used by druggists is generally understood the Sulphate of Magnesia, or Epsom Salts; of this and all the Salts used medically a description will be found under the heads of their several acid or alkaline bases; for instance, Glauber's Salts, Sulphate of Soda, under the head *Soda*; Rochelle Salts, Soda-Tartrate of Potash, under the head of *Potash*.

**SALUTARY DETERSIVE DROPS.** A nostrum at one time much recommended in syphilis and skin diseases; its base is corrosive sublimate.

**SALVATELLA** (Latin *salveo*, to preserve). A vein of the foot, so called from an old notion that by bleeding from this vein the health might be preserved, and melancholy dissipated.

**SALVE** is the common name for an ointment, as Eye-salve, Lip-salve, &c.

**SAMPHIRE.** This plant is the *Crithmum Maritimum* of botanists, belonging to the order *Umbelliferae*; it is found abundantly

nists, belonging to the order *Leguminiferae* (a native of India). Yields a fine red dye, which is owing to the presence of a peculiar principle called *Santalin*. It is sometimes



used by the Arabs as an astringent, but in this country is only employed for dying, as a basis for dentrifice mixtures, and to impart a red colour to tinctures, &c.

It is another tree of the same genus,



on some of the rocky cliffs of the British coast; it is odorous, and has a hot, aromatic, and slightly saline taste; it is considered diuretic, and was formerly much esteemed as a condiment, and is still thought to make an excellent pickle.

**SANDAL, or Red Saunders Wood.** The wood of the *Pterocarpus Santalinus* of botanists,



*Pterocarpus Marsupium*, that yields, as some suppose, the astringent gum Kino (which see).

**SANGUIS.** Latin for blood. Hence we

have the terms *Sanguinification*, the process by which the chyle becomes converted into blood; *Sanguinaria*, a vegetable alkali, obtained from the *Sanguinaria Canadensis*, or blood root of America, so called from the red colour of its juice; *Sanguis Draconis*, or *Dragon's Blood* (which see); and *Sanguis-Suga*, or Blood Sucker, a term sometimes applied to the Leech.

**SANIES.** A thin, serous, fœtid matter, discharged from fistulæ, unhealthy sores, &c.

**SANTONICA**, or *Worm Seed*, consists of the small dried flowers and tops of some species of *Artemisia*; we obtain it from the Levant and from Barbary; it contains a volatile oil and a peculiar principle called *Santonine*, to both of which it probably owes its anthelmintic powers. Its chief use, as the common name implies, is as a vermifuge to remove the ascarides and lumbrici in children; a brisk purgative must be taken with, or immediately after it; for children, the dose is from 20 to 30 grains; for adults, from 1 to 2 drachms. It is sometimes made into an electuary with Honey or Treacle, and given night and morning.

**SAPHENA** (Greek *saphes*, manifest). The name of the most obvious vein of the leg.

**SAPRO.** The Latin for *Soap* (which see). From this root we have the terms *S. durus*, *S. mollis*, hard and soft Soap, &c.

**SAPONARIA**, or *Soap Wort*. This is the *S. Officinalis*, of the natural order *Caryo-*



*phyllaceæ*; it is a native plant, and an old-

fashioned remedy for gout and skin diseases; it is thought to possess alterative, diaphoretic, and diuretic properties; it is very mucilaginous, and will make a lather like soap, instead of which it is sometimes used. The form of administration is a Decoction or Infusion, which may be taken *ad libitum*. The medical virtue of the plant appears to reside in the alkaloid *Saponin*.

**SARSAPARILLA** (Spanish *sarze*, red, *parelia*, a little vine). This is a name applied to the roots of several species of *Similax*, growing in the West Indies, Mexico, and South America; they all possess similar properties, but some of them in a more marked degree than others; those which are generally most esteemed in this country are the Brazilian, or Lisbon, and the Jamaica Sarsaparilla, the first of which is supposed to be the produce of the *Similax Syphilitica*, and the last, of the *S. Officinalis*.



This drug is generally supposed to be tonic and alterative in its properties; sometimes diuretic and diaphoretic; it is chiefly given in secondary syphilis, in various kinds of skin diseases, and in phthisical and scrofulous disorders, and in cachectical and depraved conditions of the system, especially such as depend on old venereal disorders; the form of administration is usually that of the Compound Decoction, sometimes called the Lisbon Diet Drink; or the Liquid Extract, which contains a portion of spirit, and will keep almost any length of time;



the dose of this is from  $\frac{1}{2}$  a drachm to 2 drachms in Water; of the decoction from 3 to 6 ounces; the Powder is sometimes given in  $\frac{1}{2}$  drachm to 2 drachm doses, but it is generally stale and inert. The Simple decoction, which is perhaps as efficacious as any preparation of this drug, is made thus:—Digest 5 ounces of Sarsaparilla chips in 4 pints of Water; let it simmer gently for 2 hours; then take out the chips, bruise and replace them in the Water; boil down to 2 pints and strain. The Compound Decoction is made by adding to the above quantity while boiling, Sassafras (sliced), Guaiacum Wood (rasped), and Liquorice-root (bruised), of each 10 drachms, Meze-reon roots 3 drachms; boil for 15 minutes, and strain. These preparations can be made for domestic use, but it is perhaps best to purchase the Liquid Extract. The virtues of the Sarsaparilla appear to reside in a crystalline principle which has been called *Sarsaparillin* or *Similicine*; beside this principle the root contains a colouring substance, resin, a thick aromatic fixed oil, a waxy substance, chloride of potassium, and nitrate of potash, with starch, of which the proportion is large.

**SARTORIUS** (Latin *sartor*, a tailor). The name given to a muscle by means of which the legs are crossed like those of a tailor when he sits to work; it arises from the spinous process of the ilium, and is inserted into the inner tubercle of the head of the tibia. (See *Leg*.)

**SARX** (Greek for flesh). Hence the terms *Sarcocoele*, a fleshy enlargement of the testis, a kind of hernia; *Sarcocoma*, a fleshy tumour, &c.

**SASSOLINE**. A name given to native boracic acid, found on the edges of the hot springs near *Sasso*, in the territory of Florence.

**SATURATION** (Latin *satur*, full). This term is applied 1st, to a fluid which holds in solution as much of any substance as it can dissolve or "take up," as it is called. Thus water will hold in solution about one-third of its weight of common salt; with this quantity it is said to be saturated. 2. When two principles, which have united to form a new body, are in such proportion that neither predominates, they are said to be saturated with each other; if they are not in this proportion the predominating principle is *sub* or under saturated, and the other *super*, or over saturated.

**SASSAFRAS**. The wood of the *Sassafras Officinale*, of the natural order *Lauraceæ*, is sometimes employed medicinally; it has a sweet aromatic taste, and an odour like

that of fennel, owing to the presence of a volatile oil, in which its virtues appear chiefly to reside, although it also contains fatty matter, resin, wax, tannic acid, gum, albumen, colouring matter, lignin, and salts, and a peculiar principle called *Sassafrin*.



The Sassafras has diaphoretic and stimulant properties; it is used as an ingredient in the Compound Decoction of Sarsaparilla. The Oil is sometimes given as a carminative in 1 or 2 drop doses.

**SATELITE VEINS**. The veins which accompany the bronchial artery as far as the bend of the cubit; they are scientifically termed *Venæ Comitæ*.

**SATURNUS**. The ancient designation of *Lead* (which see).

**SATYRIASIS** (Latin *satyrus*, a satyr). Lecherous madness; which sometimes occurs both in males and females; in the former it is the *Satyriasis furens* of Cullen; in the latter it is the *Nympho-mania furibunda* of Sauvages.

**SAUSAGES**. As an article of diet for healthy persons, there is nothing to be said against these, provided they are made of good meat, and have not been kept too long. If well seasoned, they sometimes tempt those who have but little appetite to eat, and are thus a positive benefit. It should be borne

in mind that the German Sausages, which are made of blood, liver; fat, &c., salted, spiced, and smoked, are apt to go into a peculiar state of decay, in which case they are decidedly poisonous. They should therefore be examined with great care before they are eaten.

**SAVINE.** The tops of the *Juniperus Sabina*, of the order *Coniferae*. A native shrub, having powerful cathartic, emmenagogue, and stimulant properties, acting especially on the uterus of the female. The dose of the Powder is from 5 to 10 grains. In large doses it acts as an irritant poison; it has been sometimes given to procure abortion, and with fatal results. The dose of the Oil is from 2 to 5 drops. Ointment and Cerate of Savine are used to keep open blisters, and promote a discharge of serum.

**SCABIES**, from *Scab*, a hard substance formed by a concretion of the fluid discharged from superficial ulcerations. The term *Scabies* is applied to a skin disease consisting of an eruption of small pimples, which occur chiefly between the fingers and at the flexures of the joints, terminating in scabs. Popularly this is called *Itch*, (which see).

**SCALENUS** (Greek *skalenos*. A geometrical figure with three unequal sides). Two muscles bear this name; they are distinguished as the *anticus* and the *posticus*, and assist in bending the head and the neck, arising from the transverse processes of the former, and being inserted into first and second ribs.

**SCALL.** An old English term derived from the Saxon *scala*, or *sceala*, and used much in the same sense as scale. This is the name of a skin disease, of which there are two varieties, Dry Scall and Humid Scall, the former being the *Sahalata* of the Arabians, the *Saphat* of the Hebrews; and the latter being also called as above by the Arabians; but *Netek* by the Hebrews. Bateman called the first *Psoriasis*, and the last *Impetigo*. See these two heads; also *Skin Disease*.

**SCALP** (perhaps from the Arabic *kaleph*, to peel, or bark; or the Latin *scalpo*, to scrape). The skin covering the head, which is thick and firm, and is connected with the cranium by a loose cellular tissue; it is the seat of various eruptions, such as *Ringworm*, *Eczema Capitis*, *Scalped Head*, *Dandriff*, *Impetigo* (which see); also encysted tumours, cuts and lacerated wounds which require careful treatment, as if inflammation is established it is very likely to affect the brain. When a Scalp wound occurs, sup-

posing the help of a surgeon cannot be obtained, it is best to wash the part carefully with cold water, and remove all dirt or other extraneous matter which may have got under the skin; then replace any flaps or strips which may have been torn up, if not quite detached, clipping the hair off as closely as possible all around the wound; then cover the edges with strips of plaister so as to keep them together, and lay over that a piece of lint soaked in cold water, and to keep the dressing in its place apply a cross bandage similar to one of those described at page 77 of vol. 1. The patient should be kept perfectly quiet, and on low diet; a little saline aperient will in most cases be necessary to cool the system, and subdue inflammatory symptoms. The dressings should be kept moistened with cold water for two or three days, applied so as not to disturb them. Sometimes in Scalp wounds there is much hæmorrhage; but this may generally be stopped after a little while by cold applications and pressure. If there is a single incision, and no great displacement of the skin, a stitch or two may be put through the edges to draw them together. One of the greatest dangers to be apprehended from a wound of the Scalp is erysipelas, which spreads very rapidly over the head, extends to the brain, and causes the death of the patient, unless its progress can be arrested. If a medical man has not been called to the case he should be at once, if there appears to be any danger of this. See *Erysipelas*.

Encysted Tumours, whose seat is the Scalp, are not very uncommon, they increase with age, and become more conspicuous on account of the falling away of the hair; if not painful, or very inconvenient, they need not be interfered with, as they are not dangerous; their removal is by no means difficult. See *Tumours*.

Eruptive diseases of the Scalp are commonly very obstinate and difficult to cure; keeping the hair cut short off, great cleanliness, and regular application of the prescribed remedies, are essential to success in the treatment of such: the head should be washed at least once a day with a strong lather of Yellow or Castile Soap. The Red Precipitate Ointment is often of essential service in these Scalp eruptions, but its application is useless over scabs; they should be removed previously by means of poultices. Alkaline lotions have been used with good effect: about 2 drachms of Subcarbonate of Soda dissolved in a pint and a-half of water, is perhaps the best form; a piece of lint saturated with it should be laid



over the head, and covered with oiled silk or thin gutta pereha.

It often happens that an eruption of this kind is thrown out to relieve the system of morbid matter, and if in this case it is stopped too suddenly, convulsions and other ill consequences may follow; the patient should be put under a course of alterative medicine, and these, with strict attention to cleanliness, &c., will effect a cure as quickly as is safe and desirable.

When there is a full habit with a tendency to eruptions of the Scalp, the diet should be somewhat lowered. Mild and farinaceous food should be in a great measure substituted for flesh. But if the habit be weakly, the diet must be rendered more nourishing and stimulating; in all cases of the kind salted provisions should be avoided.

As a common medicine for children troubled with these eruptions, we may recommend Carbonate of Iron, from 3 to 6 grains, according to age, with  $\frac{1}{2}$  a grain of Grey Powder, given twice a day for a week or so; then discontinue the latter ingredient, and keep on with the former alone for some weeks: then add the Grey Powder for a week, and intermit again. These are generally tedious cases, and the patient must not be out of heart if they are not conquered at once; nor if they break out again after a cure is effected.

**SCALPEL** (Latin *scalpo*, to serape). By this term we now understand the common straight knife used in surgical operations; formerly it was chiefly employed as a raspiratory, or instrument for seraping diseased bones.

**SCAMMONY.** The medicinal gum resin, so called, is the conerete gum of the *Convolvulus Scammonium*, a Syrian plant of the natural order *Convolvulacæ*. It is a powerful drastic purgative, stronger than jalap, and less unpleasant to take; it is useful as a hydragogue in dropsies, and is given a vermifuge in combination with calomel, and in other cases which require an active purgative. In irritable states of the stomach, however, it is decidedly mischievous. It enters into the composition of several of the pharmaceutical preparations, and is a favourite ingredient with vendors of *Nostrums*, as may be seen by a reference to that head. The dose of the Powder for adults is from 5 to 10 grains; for children from 3 to 5 grains. It should always be combined with an aromatic, to prevent griping. The best Scammony is that from Aleppo, which contains twice as much of the active principle as that from Smyrna. The Compound Scammony

Powder of the London Pharmacopœia is a combination of this gum with Jalap and Ginger,  $\frac{1}{2}$  an ounce of the latter to 2 ounces



of each of the former. This, or a preparation very like it, was formerly a popular medicine under the name of the Earl of Warwick's Powders. See *Aperients*, *Cathartics*, and *Drastic Purgatives*.

**SCAPHA** (Greek *skaphe*, a skiff). A term applied to the depression of the outer *Ear*, (which see.) Also to the nodose bandage, a double-headed roller, employed for stopping hæmorrhage; or for securing the compress after the performance of arteriotomy in the temple. *Scaphoidis* is the designation of a bone of the carpus, and also of the tarsus.

**SCAPULA.** The shoulder blade, the flat surface of which is sometimes called *venter*; it is traversed by the *dorsum scapulae*, a ridge of bone which terminates in the acromion. This is a flat triangular bone situated in the front and side of the chest; it occupies the space from the second to the seventh rib, and is articulated, or joined, with the *Clavicle* and *Humerus* (which see). It is liable to *fracture*, for treatment of which see that head, and also *Shoulder*.

**SCARF SKIN.** This is the outermost layer of the skin, and is sometimes *Cuticle* or *Epidermis* (which see), also *Skin*.

SCARABÆUS (Latin for the beetle). The larvæ of a species of beetle which constitute the kind of animal worms called *Beetle Grains*. See *Worms*.

SCARIFICATION (Latin *scarifico*, to cut or scarify). The act of making small incisions, or punctures, for the purpose of obtaining blood, watery fluid, or air. (See *Cupping*). Under which head will be found a description, of the process, and a cut of the *Scarificator*, or instrument, by which it is effected. Scarification of the gums of children, is quite another operation, it is effected by means of a gum lancet, or any other fine sharp instrument, and is done, not as many suppose to afford a passage for the tooth, but to relieve the overloaded vessels and tissues of blood, and so lessen the tension and liability to inflammation. See *Gums*, *Infants*, *Teething*, &c.

SCARLATINA is but another name for Scarlet Fever, although, popularly, the former is considered a milder and less dangerous disease than the latter. Old medical writers termed this disease *Rosalia*, from the rosy appearance of the skin of those attacked by it; Morton called it *Morbilli confluentes*; Hoffman *Rubeola Rossalia*; and Heberden *Febris Rubra*. Bateman distinguishes three different species, which he calls:—*S. simplex*, the simple form; *S. anginosa*, with sore throat, and *S. maligna*, the malignant form; which last variety has been distinguished by some writers under the names *Angina gangrenosa*, and *Cynanche maligna*. With the nice distinctions of these several varieties of a very common disease, we need not trouble our readers; it will be sufficient for us to notice the general symptoms of Scarlet Fever, and the most efficacious mode of treatment.

So plainly is the former marked, that it is scarcely possible to mistake this eruptive fever for any other; almost invariably we have first sore throat, with shivering, head ache, and loss of appetite; probably there may be sickness, and vomiting, with heat of skin, quick pulse, and great thirst. In about 48 hours from the commencement of the attack, we have an eruption of red spots on the arms and chest, these gradually become more thickly planted, and widely spread, until they pervade the whole of the body, making the skin appear of one uniform scarlet tint, that is over the body generally; in the extremities it is more in patches, the skin being perceptibly rough to the touch. On the second day, generally, the tongue presents the appearance of being covered with a white film, through which the papule project as bright red spots, as we see

the seeds on a white strawberry; then the white creamy looking film comes away gradually, and leaves the tongue preternaturally clean and red. On the fourth or fifth day the eruption begins to fade, and by the seventh or eighth has entirely disappeared, and with it the febrile symptoms. Then commences the desquamation of the cuticle, which comes away in scales from the face and body, and in large flakes from the extremities. It is during this process that the greatest danger of contagion is to be apprehended, and, until it is completed, the patient should be kept apart from the rest of the family: it may be hastened by tepid bathing and rubbing. Sometimes, with Scarlet Fever, there is little real illness; the patient feels pretty well, and, in a few days, would like to leave the sick chamber; but it is always necessary to be cautious in gratifying such a wish, both for the sake of the invalid and of others; after an attack of this fever, as after measles, the system is peculiarly susceptible of morbid influences, and a chill taken at such a time may cause the most alarming results.

Sometimes we have a great aggravation of the symptoms above described; the throat gives the first warning of the attack; there is stiff neck, swelling of the glands, the lining of the mouth and fauces becomes at once of an intense crimson colour; there are ash coloured spots about the tonsils: the general eruption is of a deeper colour, and spreads more rapidly, than in the simple kind. This form of the disease is professionally termed *Scarlatina anginosa*. Then again we have the Malignant form, with the rash in irregular patches of a dusky hue which sometimes recedes and appears again. There is intense inflammation of the throat at the very outset with general enlargement of the salivary glands; the neck sometimes swells to a great size; there is a sloughy ulceration of the throat, from which, and the nostrils, through which it is difficult to breathe, there comes an acrid discharge, causing excoriation of the nose and lips, and sometimes extending to the larynx and trachea, as well as to the intestinal canal, causing croup, vomiting, and purging. The poisonous secretion enters into the circulation and vitiates the blood; sometimes the sense of hearing, as well as of smelling, is entirely destroyed by the acrid matter coming in contact with, and inflaming, the mucous membrane. With this form of the disease it is extremely difficult to deal, and the patient often sinks beneath it in spite of the best medical advice and assistance.



*Treatment.* At first mild aperients only should be given with diluted drinks and a spare diet; the patient should have plenty of fresh air; the head should be kept cool by means of ice in a bladder, the hair being cut close off or shaved: the following is a good febrifuge mixture:—Carbonate of Ammonia 1 drachm; Solution of Acetate of Ammonia 2 ounces; Water or Camphor Mixture 6 ounces: a tablespoonful to be taken every four hours; that is for an adult; a dessert-spoonful will be sufficient for a child. If the throat swells much externally and there are head aches, apply from two to four leeches; should the weakness be great, a Blister, or hot Bran Poultice must suffice. To gargle the throat, dissolve 1 drachm of Common Salt in half a pint of water; with children who cannot gargle, this may be injected against the fauces, or up the nostrils, by means of a syringe, or elastic gum bottle. When the inflammatory action has ceased and the skin is peeling off, it is necessary to take good stimulant and nutritious food, with tonics such as Iron and Quinine, unless they cause bad head symptoms; in which case these must be discontinued, and the diet chiefly depended on. With regard to the more Malignant form but little is to be done; the depressing effect of the contagious poison upon the whole body, and upon the nervous system especially, is so great as to defy all active treatment.

"If," says Dr. Watson, "we can save such patients at all, it must be by the liberal administration of Wine and Bark to sustain the flagging powers until the deadly agency of the poison in some measure passes away. When the patient is not killed by the first violence of the contagion, the system is reinvigorated with the poisonous secretions from the throat; Wine and Bark must be diligently and watchfully given, the throat injected or gargled (as above directed), and the most vigilant care observed for some time should convalescence fortunately ensue."

As a preventive of Scarlet Fever, Belladonna has been much recommended; its effect is to deaden the nervous energy, and render the system less susceptible of the contagion. If a solution of the Extract be made in the proportion of 5 grains in 10 ounces of water, an adult may take 2 drachms, and a child from 20 to 30 drops twice a day. Recently Carbonate of Ammonia has been much recommended in the treatment of this disease. For adults 5 grain doses; for children half the quantity three times a day. Very frequently about ten or fourteen days after the subsidence of this fever, we have dropsical

swellings, with or without cough, and great lassitude, difficulty of breathing, great pain in the loins, and turbid urine. All this is often brought on by want of proper attention to the patient when convalescent; too early a resort to solid indigestible food will be likely to cause it, as well as exposure to cold and damp. For *treatment*, see *Dropsy*.

**SCELOTYRBE** (Greek *skelos*, the leg, and *tyrbe*, commotion). Literally, leg commotion. A contracted and palsied state of the limbs. This is an old term, and the affection to which it was applied closely resembled, if it was not identical, with our sea scurvy.

**SCHEELE'S GREEN.** A green pigment, consisting of the arsenite of copper. Of late it has been much used in the manufacture of paper-hangings, and (as it is thought) has proved very prejudicial to health, which appears likely, as chemical analysis has detected the presence of arsenic in the fine dust collected in rooms hung with this bright green paper.

**SCHEROMA** (Greek *xeros*, dry). A dry inflammation of the eye.

**SCHNEIDERIAN MEMBRANE.** A name given to the pituitary membrane, which secretes the mucus of the nose, from Schneider, who first discovered and described it.

**SCIALOGOGUES** (Greek *sialos* saliva, and *ago*, to expel).—Substances which increase the discharge of saliva. They are of two kinds, viz.: *Masticatories*, or pungent substances, which cause the increased flow of saliva by external application to the secretory vessels, such as tobacco, mezereum, &c., and those which produce the effect by internal exhibition through the medium of the circulation, as mercury. See *Salivation*.

**SCIATICA** (corrupted from the Greek, *ischion*, the hip.) An affection of the hip, which if it be not true neuralgia, is nearly allied to it. The seat of this very painful disease is principally the sciatic nerve, which is the largest of all the nerves, and passes out of the pelvis down the thigh to the ham, where it divides into branches, and descends to the lower part of the leg. This nerve sometimes becomes the seat of severe pain, it may be along its whole course, or only a portion of it; perhaps the hip or leg may be the part, and sometimes it is the foot and ankle only. This complaint is attended with so much suffering as frequently to impair the general health, and produce great emaciation. The pain may continue for a long while without interruption, or come on in paroxysms, the latter being more usually the case. In some instances the complaint is inflammatory, and then cupping

and leeching should be resorted to, with active aperients and other depletive measures. But when this is not the case, and the affection assumes more of a rheumatic or neuralgic character, drycupping, with stimulating and anodyne liniments rubbed in along the course of the nerve: Extract of Aconite, 1 scruple, with Soap and Camphor Liniment, of each 1 ounce; or Soap Liniment and Turpentine, equal quantities, with about 1 drachm of Laudanum to 1 ounce of the mixture. Either of these combinations may be used with advantage. When the paroxysm is coming on,  $\frac{1}{2}$  a grain of Morphine in solution should be taken, and in the intervals, Carbonate of Iron in  $\frac{1}{2}$  drachm doses every four hours. Continue this for a few days, and then take Quinine, first in grain, then in 2 grain doses, keeping the bowels regular with Rhubarb and Blue Pill every night if required; or the latter alone about 2 grains, and an ounce of Decoction of Aloes in the morning.

Sometimes Sciatica proceeds from a disordered state of the kidneys, and in this case nothing is so efficacious as Spirits of Turpentine in about 20 minim doses, taken three times a day in Milk, or some other bland fluid. In all cases of Sciatica, perfect rest is very desirable, if not necessary, as the least exertion will frequently bring on a paroxysm; moderate warmth is also a desideratum. Dr. Graves says that persons afflicted with this complaint or lumbago, "ought always to wear stout drawers; the waistband should be broad, and consist of a strong, warm, and yet elastic material, so as to allow it to be worn tight without inconvenience."

SCILLA MARITIMA. The scientific name of the Sea Onion, or *Squill* (which see). Its active principle has been called *Scillitina*.

SCIRRHUS (Greek *skirros*, hard). Indurations, generally that which precedes the ulcerated state of *Cancer* (which see). *Scirrhomata* and *Scirrhus* are the other terms from this root which are sometimes used.

SCLERIASIS (Greek *skleros*, hard). Also means a hard tumour, or induration. (See *Tumour*.)

SCLEROTICA is the outermost or hardest membrane of the eye, hence we have the terms *sclerotic-ectomy*, the removal of a portion of the sclerotic and choroid coats, for the purpose of forming an artificial pupil; and *scleritis*, inflammation of the *sclerotica*.

SCORIA (Greek *skor*, excrement). The scum, or dross of metals; the refuse or useless part of any substance.

SCOTOMA (Greek *skotos*, darkness, plural *scotomata*). Dark appearances before the

eyes, an affection attendant upon various organic diseases of the head. It is sometimes called Blind Head.

SCOTT'S ACID BATH. A bath employed by the late Dr. Scott as a remedy for jaundice. It consists of 3 ounces of diluted *Aqua Regia* to every gallon of water. The acid ingredient is thus prepared—Muriatic Acid 3 parts, and Nitric Acid 2 parts, by measure sufficient to make a pint; to this add water a pint.

SCREAMING. It is not uncommon for nervous and hysterical persons to manifest their uneasiness in this way; and with children it is very usual; nevertheless it should not be allowed to pass without inquiry as to the cause; if it is increased by any particular movement of the body something connected with the dress may be the incitement, or some internal injury. When it is intermittent, some painful affection of the chest or stomach may be suspected. If it occurs during sleep it may arise from the irritation of teething or of worms, or from presence of indigestible matter in the bowels, or from the impression of fear or terror made on the mind by some fearful scene or ghostly story. Incipient disease of the brain may also give rise to fits of screaming. Sometimes with children it is a mere habit which requires checking: such, too, is the case not unfrequently with weak and foolish women, who encourage the habit, instead of doing, as they ought, all they can to stop it. No remedies can be prescribed for screaming, as these must depend entirely on the causes, which are various.

SCROBICULUS CORDIS (Latin diminutive of *scrobs*, a depression). The slight depression observable just below the ensiform cartilage, commonly called the Pit of the Stomach.

SCROFULA (Latin *scrofa*, a sow). Probably so called because swine are said to be subject to it. This is a disease characterised by a chronic swelling of the absorbent glands, which tend slowly to imperfect suppuration. It is sometimes called *struma*, and a person so affected is said to be *strumous*. The French call it *cerrouelles*, which in Scotland has been corrupted into "the cruels." Our popular name for it is the *King's Evil* (which see). In horses this affection is called *Farcy*. Scrofula is a diseased condition of the system, or rather the constitution; it is characterised by want of power, or tone. Its more prominent symptoms are the formation of indolent tumours in various parts of the body, but most commonly in the neck, behind the ears, and under the skin; after a while these suppurate,



serofulous person has generally a puffy unhealthy appearance about the face; the upper lip is thick and tumid, the belly prominent; there is frequent discharge from the eyes, nose, and mouth; a predisposition to catarrh and swelled tonsils, often causing a huskiness in the voice.

The digestive functions are imperfectly performed, consequently the bowels are irregular; the skin is seldom free from some kind of eruption, and there is listlessness and want of energy about the whole manner and appearance of the person so affected. Serofula is among the commonest of hereditary taints, the children of serofulous parents are seldom free from it, and we find such especially among the lower classes—pallid, puffy, dull and inanimate creatures, with a dry, harsh skin, grievously full of blemishes, and a mind almost a blank. Sometimes, though but rarely, and under favourable circumstances, we find a serofulous child, whose want of bodily power and activity seems to be compensated by a remarkably quick and intelligent mind; but this is quite the exception to the rule; and, very often in such cases, it may be accounted for by the extra care and attention bestowed upon the development of the mental powers of those who are deficient in muscular energy.

Serofula commonly first shows itself between the ages of 3 and 7; but not always in those early stages of life. Sometimes in those who have the taint, it may lie dormant until after the age of puberty, waiting, as it were, for some incitement to call it forth. A slight cold, unwholesome food, bad air, or a variety of other causes, may have this effect. Very few persons, however, really die of Serofula; the ascertained proportion is about 8 in 100,000; but serofulous persons often die of diseases which attack and overcome them, more readily and easily, on account of the vitiated and weakened condition of the system. Children who are brought up by hand, or even by a wet nurse, are more liable to Serofula than those suckled by the mother; and especial care should be taken that all such are well fed and cared for, warmly clothed, well supplied with pure fresh air, and kept from all influences which might tend to develop the tendency of a serofulous condition, which in all probability they have.

As to the proper treatment of this affection, we cannot recommend the once-popular remedy, the touch of a king. The more rational course is to give plenty of nutriment, adapted to age, but not to overfeed.

Give plenty of animal food, with a moderate proportion of vegetables and fruit: plenty of milk, a little beer, and wine. Assist the digestive powers, if necessary, with mild aperients, Rhubarb and Grey Powders: give tonics, Steel Wine and Quinine (alternately, week by week, with Cod Liver Oil) occasionally elating the above for some other tonic. Decoction of Sarsaparilla, with Iodide of Potassium, is likely to be serviceable: or Iodide of Iron, in the form of a syrup. There should also be sea-bathing once or twice a week; and if the glands of the neck are much swollen, they should be brushed over with Tincture of Iodine, or rubbed with Iodine Ointment.

Serofulous Swellings of the *Knee* and *Hip-joint* (for treatment, see those heads). According to Mr. Phillips, this may be summed up in a sentence:—"Good food, good air, good clothing, good exercise."

SCROFULARIA NODOSA. The scientific name for the Knotty-rooted Figwort, which derives its first scientific name from being employed in serofula; it is also used to make a fomentation for piles.



SCROTUM. The skin which envelopes the testes. It is sometimes employed in a more restricted sense; that is, to signify the longitudinal line which divides the testes into two equal parts. This part is liable to several diseases, such as *Cancer* (which see), and *Hernia* or *Rupture* of the Scrotum, which is called by those of the profession *Scrotocoele*.

SCURF, commonly called *Dandriff*. This is an exfoliation of the cuticle of the skin,

which comes away in light flakes or scales; it is disagreeable but not at all dangerous, and only requires proper attention to keep it from being unsightly. It chiefly occurs in the head, but persons of delicate skins have it also on the face sometimes. The children of the poor, who have a prejudice against removing the scales, frequently have most filthy and disgusting heads in consequence. The loose exfoliations of the cuticle should always be removed, but with care and gentleness, so as not to wound the skin beneath. The scalp should be regularly washed with soap and water, and a simple ointment or pomatum applied; should it be obstinate, Red Precipitate Ointment may be rubbed lightly upon the scaly parts once a day, or the whole scalp may be washed with an alkaline lotion, made according to the recipe of Erasmus Wilson, of 2 ounces of Solution of Caustic Potash to a pint of Rain Water.

SCURVY (Latin *scorbutus*). A term probably derived from the Slavonic word *scorb*, with a Latin termination; it has been referred to the Danish *schorbert*, and *scorbeck*, signifying sore mouth—and the effect produced by Scurvy on the gums gives some show of probability to this derivation.

The characteristics of this disease are great debility, a pale complexion, with bloated skin, and livid spots about it here and there; soft, spongy gums, with offensive breath; swellings on the legs, and hæmorrhages from the mouth, nose, and bowels; the stools and urine are very fœtid; and, as the disease proceeds, the livid spots on the skin enlarge and deepen in colour, until they resemble bruises, from the effusion of blood into the cellular tissues; the skin also becomes dry and rough, and of an uniform dusky hue: the debility increases, there is great difficulty of breathing, constipation of bowels, and disinclination to take any kind of nourishment, so that eventually, unless the disease yields to medical treatment, the patient dies of exhaustion.

Such is the inevitable course of a bad attack of Scurvy. Of course, lighter ones are constantly occurring, and severe ones in which the proper remedies are employed in time to arrest the progress of the disease, the origin of which is intimately associated with fatigue, cold, moisture, and impure air, and chiefly with a deprivation of vegetable food, and eating too exclusively salt provisions.

From this it must be evident that a liberal diet of fresh meat and succulent vegetables should be at once resorted to. Let the patient have plenty of open air exercise

and tepid bathing; drinking saline and chalybeate waters, especially those of Harrowgate, will be serviceable; and if vegetables cannot be procured, a portion of Lime or Lemon Juice should be taken daily. Mild aperient medicines will also be required, and, in many cases, tonics; preparations of Soda are the best, with bitter infusion. It has been ascertained that in this disease the blood is deficient in Potash, therefore this substance should be among the remedies administered—either the Bi-carbonate, Chlorate, or Tartrate will do; a drachm dissolved in a pint of water should be taken daily. Commonly Scurvy, if not very bad, can be cured by dietary measures alone. In the epidemic which prevailed in the prisons of Perth, in 1846, the addition of Milk, and, in some cases, Meat, to the usual allowance, arrested the disease. Malt liquor is good for those affected with Scurvy; of Lemon Juice,  $\frac{1}{2}$  a pint should be given every day, pure, or diluted with water: this appears to be almost a specific, few cases resisting its influence.

SCUTIFORM (Latin *scuta*, a shield). Shaped like a shield. A term applied to the cartilage of the sternum or chest. See *Xiphoid*.

SCYBALUM (Greek *skybalon*, excrement). A term applied to the small indurated balls into which the fæces become converted after long retention in the colon.

SEA. This is a subject which naturally divides itself into three branches—Sea air, Sea bathing, and Sea sickness. Of the effects of the two first upon health we have several times had occasion to speak in our remarks upon the several diseases in which they are beneficial, and under such heads as *Air*, *Climate*, &c., (which see); also *Bathing*. One fact should be borne in mind by those who resort to the sea-side, for the sake of the purer and more bracing atmosphere which prevails there, viz., that invalids are likely to derive more benefit from the fresh sea breezes at the distance of about a quarter of a mile from the sea than close to it. The residence of such should be on a hill sloping down to the shore. On the same level as the sea, the air is often rendered somewhat impure by the decaying animal and vegetable matter which is left by each receding tide.

On the last of the three heads of this subject we shall speak fully when we come to treat of *Sickness*.

SEA TANG, or SEA WRACK. These are the common names of a kind of fuci, or seaweed, sometimes called the Yellow Bladder Wrack, or Sea Oak, Latin *Quercus Marina*, &c. Roasted and reduced to powder, it has



been given with good effect in scrofula, and other diseases of the lymphatic system. The plant contains soda and iodine, and was formerly a good deal used for cataplasms.

**SEARCHING.** Technically applied to the operation of introducing a metallic instrument, through the urethra into the bladder, for the purpose of ascertaining the presence of a *Calculus* (which see.)

**SEBACEOUS** (Latin *sebum*, suet). A term applied to glands or follicles which secrete an unctuous matter. They are situated in the skin, and are most numerous about the face and nose. Sometimes the orifices of these glands become black, and then they give to the face a very unsightly appearance; on squeezing the skin around them the fatty matter oozes out in the shape of a small worm with a black head, and this it is popularly thought to be; but although the matter itself is really not a creature, it has been ascertained to be the habitat of a minute parasitic worm, which, according to Mr. Erasmus Wilson, varies in size from 1-64th to 1-135th of an inch. Its shape is shown in the accompanying cut.



There are usually two, but often more, in the sebaceous contents of each follicle. They are said to exist in the most healthy skins, although they do not cause any irritation and annoyance, unless they become unduly numerous. The formation of matter which constitutes a common pimple is the result of inflammation proceeding from this cause. To prevent such a result as this, and the presentation of the unsightly "black heads," the face should be frequently washed in warm water, and well rubbed with a towel. Sometimes their appearance is attended with disorder of the stomach, which requires attention.

*Sebacic Acid* is an acid obtained from hog's lard, and *Sebat* is a neutral compound of this acid with a base.

**SECALI CORNUTUM.** The Latin name for *Ergot of Rye* (which see).

**SECRECTIONS** (Latin *seerno*, to separate). A product secreted or separated by a peculiar process from the blood. Under the term *Secretions* we generally include all secreted products whether they be *Excretions*, that is, matter separated by animal bodies, and rejected on account of their noxious qualities: as the carbonic acid from the lungs, the feces from the intestines, the urine from the bladder, the perspiration from the skin,

&c.; or whether they be *Secretions* properly so called, which are matters separated and not rejected, but retained for the performance of certain subordinate actions in the living system such as the bile, the gastric juice, the saliva, &c.

**SECUNDINES** (Latin *secundus*, second). A technical term for the after-birth in child delivery, consisting of the placenta and its membranes. See *Labour*.

**SEDATIVES** (Latin *sedo*, to allay), Substances which occasion a temporary stimulus, which is followed by depression of the vital powers, and generally by torpor or sleep. Prussic acid is one of the most characteristic examples which can be cited of a true sedative. Opium and other substances are sometimes wrongly so called. See *Narcotics*.

**SEGMOID** (Greek *sigma*, or the letter x, and *eidos* likeness). Resembling the letter x; applied to the flexure of the colon, where it forms a double curve in the iliac region; and to the semicircular valves which guard the orifice of the pulmonary artery, and of the aorta.

**SEIDLITZ.** The name of a Bohemian spa, whose waters owe their aperient quality to the presence of sulphate of magnesia, of which 100 grains are said to be contained in every pint of the water, which differs essentially from the cooling aperient drink taken in this country under the name of *Seidlitz Powders*. These consist generally of 2 drachms of Rochelle Salts, 2 scruples of Carbonate of Soda, dissolved first in about half a pint of water; then add  $\frac{1}{2}$  a drachm of Tartaric Acid, and drink while effervescing. There is no saline aperient so pleasant to take as this.

**SELENIUM** (Greek *selene*, the moon). An elementary body extracted by Berzelius from the pyrites of Fahlun. According to Dr. Prout, it constitutes the link between sulphur and the metals: from it is obtained *Selenious Acid*, which contains 100 parts of Selenium and 40 of oxygen; *Selenic Acid* containing 60 parts of oxygen to 100 of Selenium; and *Selinuretted Hydrogen*, a fetid gas containing 2.5 of hydrogen to 100 parts of Selenium. The medical properties of this substance do not appear to have been yet tested.

**SELLA EQUINA**—*Sphenoidis* and *Turcica* (Latin *sella*, a seat). These are all designations of the *sphenoid* bone, resembling a Turkish saddle.

**SELTZER WATER.** This is a purgative mineral water which owes its active properties to the presence of 4 grains of Subcarbonate of Soda, 2 of Subcarbonate of

Magnesia, and 20 of Muriate of Soda, in 20 ounces of water impregnated with Carbonic Acid Gas. It is useful in some forms of dyspepsia and gravel: to those in good health but little good can result from the habitual use of it.

**SEMEN** (Latin *sero*, to sow). This is a name applied not only to vegetable seeds but also to the peculiar vivifying fluid secreted in the testes.

**SEMEIOLOGY** (Greek *semeion*, a sign). That branch of medical science which treats of the signs of diseases.

**SENEGA** (so called from its use by the Senegaroo Indians as a remedy for the bite of the rattlesnake.) This is a plant of the



natural order *Polygalaceæ*, it is commonly called *Snakeroot*.

**SENEGINE** is the active principle of the *Senega*, and other species of the genus *Polygala*.

**SEMI** (Latin for *semis*, half). A prefix of several surgical terms, such as *Semi-circular Canals*, three canals of the internal ear, situated in the substance of the petrous portion of the temporal bone, and opening into the vestibule (see *Ear*); *Semi-Cupium*, a half bath, or one that reaches only to the hips; it is called by the French *démibain* (see *Baths*); *Semi-lunar Ganglia*, two ganglia situated on each side of the aorta, on a level with the celiac artery; *Semi-lunar Notch*, an indentation in the form of a half moon, between the coracoid process and the upper border of the *Scapula* (which see);

*Semi-lunar Valves*, three semi-circular valves which guard the orifice of the pulmonary artery; *Semi-membranosus*, a muscle arising from the tuber ischia, and inserted into the tibia; it is the *Semi-nervosus* of Wilson, and bends the thigh (which see).

**SEMOLA** AND **SEMOLINA**. These are farinaceous preparations, both containing a large proportion of gluten, and therefore highly nutritious; the former of the two is the invention of the eminent chemist Mr. Bullock; it consists chiefly of the gluten of wheat freed from the starchy constituents of the grain; in its nourishing powers it approaches very near to animal food. *Semolina* is prepared from a Russian grain; a very similar substance, but lately been sold under the name of *Manna Group*.

**SENNA**. A name commonly applied to the dried leaflets of several species of *Cassia* of the natural order *Leguminosæ*, which are found chiefly in Africa and India. But that which is considered as the true official *Senna* is the produce of the *Cassia Lanceolata* and *C. Obovata*.

This is commonly called *Alexandrine Senna*, from the port at which it is shipped, but it is collected far in the interior of Upper Egypt beyond Sienné; it is commonly adulterated with the leaves of two or three other plants, which may be distinguished from it by their greater length and thickness, the absence of visible lateral nerves on the under side, and their lighter colour; some of them by their downy surface, their unbranched lateral nerves running nearly in parallel lines, and by their being usually folded lengthways; this adulteration, which is always found more or less in the kind of *Senna* here spoken of, is technically called *Argel*. The Tripoli *Senna*, which is the produce of the *C. Æthiopica*, is said to be collected chiefly at Fezzan; it is smaller and more broken than the other kinds, the leaflets being more thin and fragile; they are naturally, too, of a more blunt rounded form, and as generally imported are much mixed with stalks and pieces of fibre. Indian *Senna* is the produce of *C. Elongata*; it comes mostly from Arabia, but is shipped at East Indian ports; it is distinguished from the other kinds by its long narrow leaflets; it is considered the best kind.

The purgative properties of *Senna* are well known, and it is the most commonly employed of all cathartics; it is sure in its operation, but rather heating, and apt to gripe and cause nausea; therefore an aromatic should generally be given with it. It should not be administered when there is

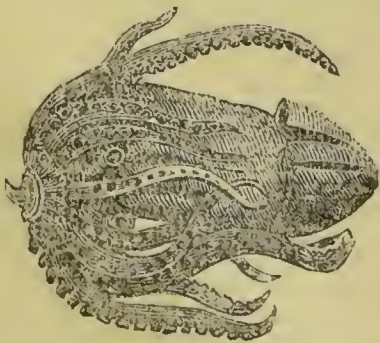


nor the existence of piles. It may be given to children and elderly persons quite safely, when a tolerably active purge is required, and it is well to combine a saline aperient with it, as in *Black Draught* (which see). The powdered Leaves are sometimes, but not often, administered; the dose varies from  $\frac{1}{2}$  a drachm to 2 drachms; the Confection, a mild laxative, commonly called *Lentative Electuary*, from 1 to 4 drachms; the Syrup, a good preparation for young children, from 1 to 2 drachms; Tincture, from 1 to 4 drachms; Compound Infusion, an excellent family medicine, from 1 to 3 ounces. It may be prepared as follows:—Senna Leaves, 4 drachms; Raisins (stoned), 1 ounce; Ginger (bruised), 2 drachms; Boiling Water, a pint; macerate four hours in a covered vessel, and strain. A table spoonful of brandy will add to its stomachic properties, and make it keep better; but, if for young children, this had better not be added. The Infusion should be kept in a cool place.

**SENSES.** These are the faculties by which we become acquainted with the condition of our bodies, and with certain properties and states of external things, such as their colour, taste, odour, size, form, density, &c. The senses are five in number, viz. *sight, hearing, taste, smell, and touch* (all of which see). They have been well called the “five gateways of knowledge.” Their messengers, which convey all impressions to the brain, are the *Nerves* (which see); to this head we may also refer for *Sensation and Sensibility*.

**SEPTIC** (Greek *septo*, to putrify). Relating to *Putrefaction* (which see). *Antiseptics* are substances which retard putrefaction.

**SEPIA OFFICINALIS.** The scientific name



of the cuttle fish, the bone of which is used as a dentifrice.

**SEPTUM** (Latin *sepes*, a hedge). Literally an enclosure, or fenced place; hence the term *Septum Cordis*, the fleshy substance which separates the right from the left ven-

tricle of the heart; this is sometimes called *S. auriculorum*. The partition separating the anterior Cornua of the brain is termed *S. lucidum*; and the cartilaginous partition of the nostrils *S. narium*.

**SEQUESTRUM** (Latin *sequestro*, to sever). The portion of bone which becomes detached in necrosis.

**SEQUELA** (Latin *sequor*, to follow). Morbid affections which follow certain diseases and appear to be a natural consequence of them; as the form of dropsy termed *anasarca* after scarlatina, &c.

**SERIASIS.** (Greek *seros*, a cavity.) An affliction described by Paulus as an inflammation about the cerebrum, in which the brain is said sometimes to mortify in three days; it is so called, because the bones about the fontanelle, or sometimes the membrane only, are depressed or drawn in, leaving a cavity. (See *Brain*.)

**SERPENTARIA.** A plant of the natural order *Aristolochiaceæ*, called in America, *Virginian Snake Root*. The root is the part used; it is in the form of slender fibres, with knotted heads. *Serpentary*, as it was formerly called, is an aromatic tonic and diaphoretic, in large doses causing nausea



and relaxation of the bowels. It was at one time much given in agues and other intermittents, usually in combination with bark;

is still sometimes administered, with stimulants and diaphoretics, in typhoid and other fevers of an exhaustive character. The dose of the Powder is from 10 to 30 grains; of the Infusion, from 1 to 2 ounces; of the Tincture, from 1 to 3 drachms.

**SERPIGO** (Latin *serpo*, to creep.) A name sometimes given to ringworm or tetter, from its creeping over the surface of the skin. See *Herpes*.

**SERRATUS** (Latin *serra*, a saw). A name given to three muscles on account of their jagged, or saw-like form; they are *S. magnus*, *S. posticus superior*, and *S. p. inferior*; the first of which brings the scapula forward, and is a muscle of inspiration; the second raises the ribs, and thus dilates the thorax; and the last depresses the lower ribs, and draws them backwards.

**SERRÉ-NEUD**. An instrument, consisting of a long narrow round piece of silver, terminating at the end with a littleround hole, like the eye of a needle, and at the other in a kind of groove or notch; it was formerly much used in applying ligatures, but is now nearly superseded by a more convenient contrivance.

**SERUM**. The thin transparent part of the blood which may be obtained after the crassamentum has separated by coagulation; it is of a pale straw colour, with a greenish cast, and a slight saline taste. (See *Blood*.) The above term is also applied to the thin parts of milk (see *Whey*); and to the lymph-like fluid secreted by certain membranes of the body, such as the pericardium, peritoneum, pleuritis, which are denominated serous membranes.

**SESAMOID** (Greek *sesame*, an Indian bean). The designation of small bones resembling a bean in shape, found at the roots of the first joint of the thumb and the great toe.

**SESQUI** (contracted from the Latin *sesquiusque*, and a half). A prefix denoting the quantity and a half more. Hence the term sometimes used in prescriptions, *sesquuncie* for *sesqui uncia*, an ounce and a half; *sesquihora*, an hour and a half, &c.

**SETA** (Latin for a bristle). Hence the name given to the Horse-hair worm, or Gordius, *Seta equina*. The Laplanders are subject to a disease which they call *ullen*, or *hotine*, and which they attribute to the presence of this worm in the stagnant water of their marshes and ditches.

**SETON** (from the above root), is a kind of issue commonly made with a flat needle, threaded with silk, or a thin strip of gutta-percha; formerly horse-hair was employed, hence the above name. To form a Seton it

is only necessary to pinen up a fold of the skin with the finger and thumb, and then to pass through the base of the fold the flat Seton-needle, armed with silk or other suitable material, which must be left in the opening, with an end hanging out on each side. A few days after this operation has been performed there will probably be a discharge of thick matter, which will have to be kept up for some time. This matter must not be suffered to remain long on the part, or it will become very offensive and irritating; it should be carefully washed off two or three times a day, and a dressing of simple cerate applied. At each dressing the silk in the Seton should be gently moved from side to side, to keep up the inflammatory action, and consequent discharge, from which it is hoped the desired relief may be obtained. A Seton is most commonly applied in the neck, to relieve alarming head symptoms. It requires to be kept open for a considerable length of time; if it shows a disposition to heal before the end is attained, a little Savine Ointment, or Blister Salve should be smeared over the silk and drawn into the cuts. See *Issue*.

**SEX**. As any physiologist might expect, this element exercises a marked effect upon individual health. Thus we find in the male, where there is greater tone and power, and increased activity by his occupation and habits, there is a particular liability to inflammatory diseases. In the female, where there is greater delicacy of frame and laxity of fibre, there is a greater tendency to those of a nervous character. In connection with childbirth, it is an ascertained fact that a pregnancy in which the child is a male is likely to be more prolonged than if of the opposite Sex. With regard to the relative number of the sexes born, we find that the average of Europe gives 106 boys to 100 girls, and, according to Quetelet, with married couples, the more the father's age exceeds the mother's, the greater will be the number of male children born. As a general rule, females require smaller doses of medicine than males.

**SHAMPOOING**. A name given in the East to an operation which consists in pressing the joints and rubbing the limbs, so as to mitigate pain, and restore vigour and tone to the parts. It is an accompaniment of the hot bath, and is thought to be useful in rheumatic affections, sprains, &c.

**SHELL FISH**. These are generally indigestible, and some, like the mussel, are even poisonous at times. See *Fish*, *Poisons*.

**SHERRY**. This is a dry, strong wine, which takes its name from Xeres in Spain,



imported, it contains rather more than 19 per cent. of alcohol. It has not the astringency of Port wine, and generally agrees better with invalids. If good, it is nearly, or quite free from acid.

**SHINGLES.** (Probably a corruption of the Latin term *cingulum*, a girdle.) This is a popular name for a disease of the skin, which is a variety of *Herpes*. The eruption, which consists of vesicles in distinct clusters, upon inflamed bases, that extend a little beyond the margin of each cluster, is generally preceded by such constitutional symptoms as loss of appetite, head ache, cold chills, sickness, and accelerated pulse. Sometimes there is heat and pricking in the skin, and a sensation as though hot needles were thrust into it; or there may be a deep seated pain in the chest. At times, however, the patient has no warning of this kind, and he is first made aware of the affection by the appearance of red patches, with small elevations, clustered together; these gradually enlarge, and become clear and glassy, being filled with a colourless lymph, which first turns milky, and then concretes into scabs. As the crusts fall off, and the eruption disappears at one part, it frequently shows itself in the immediate vicinity, and so gradually creeps all over the skin; sometimes there is a free discharge and ulceration. In some cases the clusters of eruption begin at the loins, and extend downwards to the thighs and legs; very commonly they form a sort of band round the waist, and hence, probably, the name given to the disease. From the 12th to the 14th day is the time at which the scabs, if a cluster, may be expected to fall off, leaving the skin beneath red and tender, with little indented rings, where the vesicles have been. Generally the disease runs its course in about three weeks; it is not contagious, and may attack the same person more than once. Young persons between 12 and 25 years of age, appear to be most subject to this disease, which, however, sometimes attacks aged people. Summer and autumn are the seasons when it most prevails; the cause of it is not very clear; probably it may arise from sudden changes of temperature, and chills taken when in a heated state. For *treatment* we should recommend aperients to keep the body gently open, with a light and nutritious diet; effervescing draughts, made with Bicarbonate of Potash, instead of Soda; if, as is sometimes the case, there is much pain, take Dover's Powder at bedtime, from 5 to 10 grains, according to age; bathe the eruptions with Goulard Water,

and dress them, when discharging, with Zinc Ointment, spread upon lint; old persons will require tonics and change of air, but the young generally get over it without this; although, for all, a little strengthening medicine is desirable.

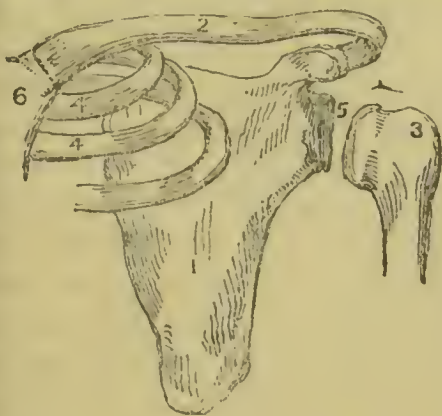
**SHIVERING.** This is probably a nervous sensation; it is symptomatic of cold and the approach of fever, and sometimes of the formation of matter or pus within the tissues of the body, which is a consequence of inflammatory disease. When Shivering amounts to actual chattering of the teeth and shaking of the limbs, it is termed *Rigor* (which see).

**SHOCK.** This, in medical language, signifies the depressing effect upon the nervous system and the constitution generally, of severe bodily pain or injury. Its effects may be either temporary or lasting, and it will be severe, not so much in proportion to the severity of the cause, as to the sensitiveness of the part or organ through which it is received. Thus, a comparatively slight blow on any part where there is a considerable collection of nerves closely interlaced, as about the heart, at the pit of the stomach, or in the neck, will be followed by an immediate Shock, which sometimes proves fatal. Great, too, is the depression of system which follows a blow on the head, and injuries where there is extensive laceration and hæmorrhage; and surgical operations, of which this was one of the principal hazards before the introduction of the use of chloroform and other anæsthetics to produce insensibility.

A person who has suffered a Shock should be treated precisely as though he had fainted, or become insensible from concussion of the brain. Stimulants by the mouth, as soon as they can be swallowed, should be administered, but cautiously—for it should be remembered that after depression we have reaction; and inflammatory action may run more high after a Shock than before it. During the first stage of a Shock, all injudicious movements and interference should be prevented. Let the patient remain quiescent for a time, or the very means taken for restoration may prove fatal to hopes of recovery. See *Fainting*.

**SHOULDER.** This part of the human frame is composed of three bones, as shown in the accompanying cut; the shoulder-blade or scapula (1); the collar-bone or clavicle (2); and the arm-bone or humerus (3); to explain more clearly the anatomy of the part, we give the upper ribs (4, 4); the cup of the scapula is marked by 5; into this the rounded head of the humerus fits in

such a way as to allow of a free movement of the lower joint of the arm, which owing to the shallowness of the cup is very liable to *Dislocation*, (which see). By means of the collar-bone which springs from the chest-bone (6) at one end, and is attached at the other to the projection of the shoulder-



blade, the Shoulders are extended, or as it is generally called "squared," and this gives that wide appearance to the upper part of the chest which is in fact the narrowest part, the whole shape of it being conical. Owing to the thinness of the clavicle it is one of the bones most liable to *Fracture*, (which see.) A glance at the diagram will show how admirably adapted is the whole structure of this part to effect the various movements of the arm and hand. There is nothing peculiar in the diseases or injuries to which the part is liable to call for special attention, other than what they have recorded under the heads above referred to.

**SIBBENS.** A name for *Framboesia*, or *Yaws* (which see.)

**SIDE.** Pain in the Side is a common symptom of several affections; when it occurs high up, it may be occasioned by inflammation of the lungs, in which case there will be also febrile symptoms, but it is not so generally, if it proceeds from muscular rheumatism; if aggravated by external pressure, we may usually assign it to this cause. Pain in the right Side of the chest and lower down, may be owing to some affection of the liver, on the left Side to affection of the spleen; on either Side, or in any position, it may be merely sympathetic, and in females is often so, of some functional or other disorder of the womb. Continued pain in the Side should always meet with proper attention; it may frequently be relieved by a little aperient

medicine, and stimulant and anodyne liniments rubbed into the part affected, or mustard or bran poultices applied thereto.

**SIDERATIO** (*Latiu sidus*, a star.) A name given to erysipelas of the head and face, under the impression that it was produced by the influence of the planets.

**SIDERUM.** Bergmann gave this name to phosphate of *Iron* (which see).

**SIGHT.** Of the organ of this most important sense, we have spoken somewhat fully under its proper head (*see Eye*). Of the nature of the medium by which it acts, an account will be found under the head *Light*. On the several diseased states and conditions, which interfere with the proper action of this organ, remarks have been made under the first of the above heads, also under that of *Ophthalmia*, &c.: for the means taken to remedy natural defects of Sight see (*Spectacles*.) It is only necessary for us here briefly to remark of this faculty of seeing, that like the other senses, it conveys no clear information to the mind, until it has been well exercised and tested by comparison: thus the person born blind, to whom the faculty is for the first time given, recognizes not the objects he looks upon, although touch, taste, or smell may have previously made them known to him.

The image now first painted on his retina may convey a different impression to his mind, from that which an examination of the same object by another sense than Sight had conveyed, and he can only arrive at a true conception by studying and comparing. The blind man in Scripture, to whom Our Saviour gave Sight, saw men as trees walking; he had known there were men before, and he had known that there were trees; could tell when he came in contact with one or the other, but he could not tell what they were like; now he had a new power of *testing* his former experience, and correcting his feeble impressions. The infant, when it first opens its eyes to the light, looks upon a world of wonders, and can form no correct idea of any object which it sees; until it has also touched and handled, tasted, or smelled it. The moral of all this is, that Sight, like every other faculty, requires careful education, and the pitch of perfection to which it can be educated, is truly surprising. Very seldom is it sufficiently and properly exercised. Most men walk about this beautiful and wonderful world, as if they had a veil before their eyes; vision is to them but a half faculty, a dull, almost inert sense; but such should remember, that he is best able to serve him-



self and his fellow creatures, and to appreciate the power and goodness of God, who improves and exercises to its fullest extent, every power and faculty which God has given to him.

**SILICA.** Siliceous earth, being the oxide of silicium, constituting the whole of silix, or flint. It is dissolved by solution of the fixed alkalies, and combines with many of the metallic oxides; hence it is sometimes called silicic acid; the compound with alkaline bases, *Fluo-silicic Acid gas*, is formed when hydrofluoric acid comes in contact with siliceous earth. The solution is formed by saturating water with this gas; it emits fumes on exposure to the air, and is commonly called *Saturated Fluoric Acid*.

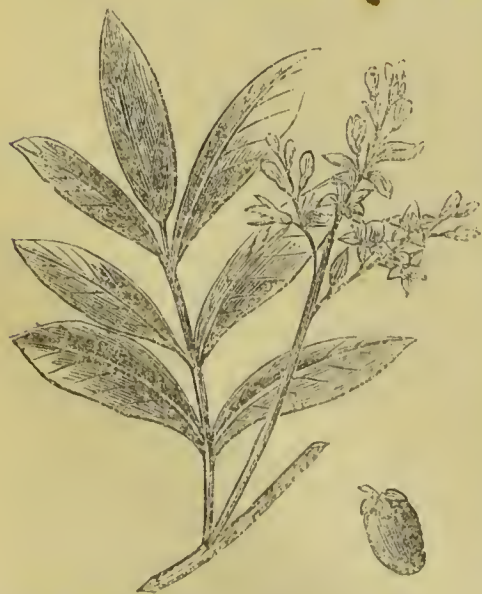
**SILK.** Dresses woven of this material are at once light and warm, and many persons who from natural irritability cannot wear woollen fabrics next the skin, will find this a good substitute. *Oiled Silk* is useful to put over poultices and other moist applications, to prevent speedy evaporation.

**SILPHIUM.** A name sometimes given to *Assafœtida*, (which see).

**SILVER** (Latin *Argentum* (which see) also *Quicksilver* and *Mercury*.

**SILVIC ACID.** An acid produced from the resin of the Scotch fir. See *Abies*.

**SIMARUBA.** The Mountain or Bitter Damson, or Slave Wood of Jamaica, and



other West India islands, yields what is commonly called the Simaruba bark, which possesses much the same properties as quassia, with which it has a close botanical

as well as medical affinity. Like most other bitters it causes vomiting and purging when given in large doses; it is useful in all cases where a simple tonic is required; it is not given in substance, but in the form of an infusion, the dose of which is from 1 to 2 ounces. This drug is much used in Germany in the latter stages of dysentery and diarrhoea.

**SIMPLES.** The general name of all herbs which are possessed of any real or reputed medicinal virtues.

**SINAPIS.** The name of a genus of plants of the order *Cruciferae*, in which are the *S. Alba*, and *S. Nigra*, the white and common Mustard (which see). From this root we have the term *sinapism*, a mustard plaster or poultice.

**SINCRIPUT.** The fore part of the head; the back part is called the *occiput*.

**SINEW.** (This word comes from the Saxon *sinu* or *sinwe*, and its primary meaning is stretched or strained.) In anatomy it signifies a tendon, or that part of a muscle by which it is united to a bone. See *Muscle*.

**SINGING**, like reading aloud, is a vocal exercise, which is beneficial to those who have sound lungs and good muscular strength, although with such it may be mischievous, if practised too long or too frequently: professional singers, we find, as a rule, are very liable to bronchial and chest affections, but this may be partly owing to the great alternations of temperature to which they are necessarily exposed. Those who are narrow chested and predisposed to pulmonary complaints, should avoid singing, except as an occasional exercise of a most pleasing accomplishment.

**SINGULTUS.** The meaning of this term is properly sobbing, it is commonly applied to *Hiccup* (which see).

**SINKING.** We often hear persons complain of a "Sinking" sensation at the pit of the stomach: this generally arises from a disordered state of the digestive organs; the effect is a purely nervous one, and a nervous stimulant will be likely to relieve it for a time; but there will quickly be a return of the sensation, and then the remedy must be resorted to again, with the probability of establishing a dangerous habit. Better is it therefore to try aperient medicine; something like this will probably afford quick and permanent relief. Rhubarb and Carbonate of Soda of each a drachm; Peppermint or Cinnamon Water, 6 ounces; two tablespoonfuls every four hours until the bowels are freely moved.

**SINUS** (Latin for gulph). It is used to denote 1st, a cavity or cell within the sub-

stance of a bone, as of the forehead, &c. 2nd, a large vein, like those of the brain, &c. 3rd, the numerous small foramina which open on the surface of the mucous lining of the urethra, and which are called the *sinuses of Morgagni*, &c.

**SIXTH SENSE.** A term which has been applied to *muscular* sensations, arising from the sensitive department of the fifth pair and compound spinal nerves. The *seventh*, or *visceral sense*, is a term applied to the *instinctive* sensations arising from the ganglionic department of the nervous system.

**SIZE.** A term sometimes applied to the buffy coat which appears on the surface of coagulated blood drawn during inflammation. The surface of the coagulum is frequently contracted, puckered up at the edges and concave in the centre, in such cases the blood is said to be cupped. See *Blood, Inflammation*.

**SKELETON** (Greek *skello*, to dry up). The dry bony frame of an animal; the osseous structure, as it would be more scientifically termed. Here, of course, we have only to do with the human Skeleton, of which it will be necessary to give a brief description; it is formed by a complete assemblage of conjoined bones, the exact number of which is somewhat variable, some few not being always present, and some minor ones, such as those of the ear, being often omitted in reckoning; 252 may be stated as about the number of distinct parts which go to make up this complex and wondrous structure. When these bones are united by the natural ligaments, it is called a natural Skeleton; when by wires, as is the case when prepared and preserved for scientific purposes, it is termed an artificial Skeleton, which term, however, conveys a false idea.

Of the mental superiority of man over all other living creatures, no rational person entertains a doubt; but with regard to his physical conformation, some have questioned his right to the proud position, which all true comparative anatomists agree in assigning him, and not without good reason. For the sake of comparison, we accompany our cut of the human Skeleton with that of the most highly organized of the brute animals, the head of the monkey tribe. A mere cursory glance at these two figures convinces us of the superior beauty, and higher development of the structure of man as compared with that of the oran-outan, and a little examination will convince us, that our first impression is a correct one. In following out the comparison, step by step, we shall at the same time be enabled to give our readers a clear notion of the

peculiarities of the human structure, and exhibit the striking difference between it and that of the baboon. For a closer study of any particular part, we must refer our readers to the subject heading under which it may be found.

The first thing that strikes the observer is the manifest want of adaptability in the Skeleton of the baboon to maintain the erect position; whilst the placing of man on his hands and feet is felt to be opposed to his structure. If we examine the two Skeletons from this point of view, we shall observe a number of remarkable structural differences. In the first place, it will be seen that the feet of man are broader than those of the monkey, and of any other animal in proportion to its size, in order to give a surface large enough for the body to be conveniently placed on them, and moved with rapidity. On examining the bones of the tarsus (instep) (figs. 1 and 2 *n*), it will be seen that they are bound firmly together, and that they are on a level with the bones of the toes. This is not the case with the oran, in which the bones of the tarsus are loose, and considerably elevated above those of the toes. In dogs, and many other quadrupeds, the bones of the instep and wrist are considerably elevated from the ground, and the body rests entirely on the toes. In the horse, and other animals with a solid hoof, not only are the bones which represent the wrist and instep in man elevated, but only the third series of bones constituting the toes (fig. 1, *o*) rest on the ground. The whole structure of the foot of man is adapted to sustaining the weight of the body, and is not used for the purposes of prehension, as is the case in all the quadrupeds. In this we have an instance of higher development, as the function of handling, which is possessed by both the fore and hind extremities of the monkeys, is entirely confined to the upper in man; whilst the function of supporting the body, which must necessarily interfere with the delicate sensation required for expert manipulation is performed by all the extremities of the monkeys, it is confined to the lower extremities in man. It is this fact that at once constitutes man "bi-manus," (two-handed), and "biped," (two-footed); a combination not found in any other animal.

If we now cast our eyes above the foot, we shall see how differently the parts of the leg are placed in relation to it in man and the monkey. In the former the tibia and fibula (fig. 1, *m*) are placed at right angles with the foot, and the heel-bone projects so



as to receive the tendon of the powerful muscle which constitutes the calf of the leg, and performs the most service in the locomotion of the body. Above the bones of the leg are those of the thigh (figs. 1 and 2, *l*). On these bones the broad pelvis

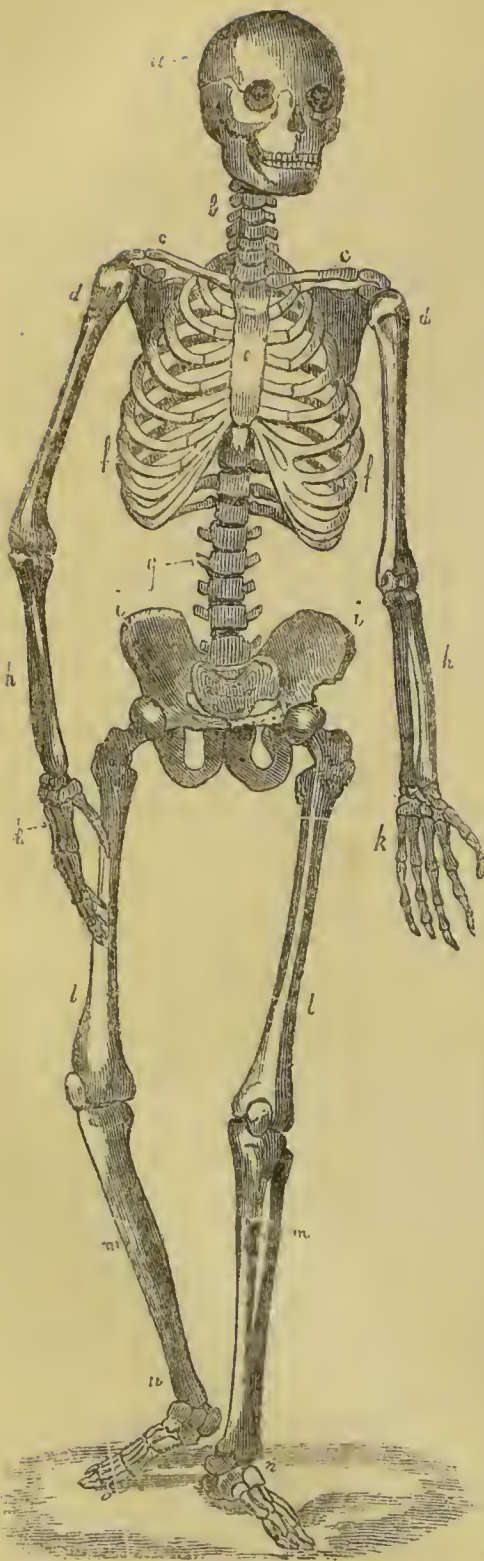


Fig. 1.

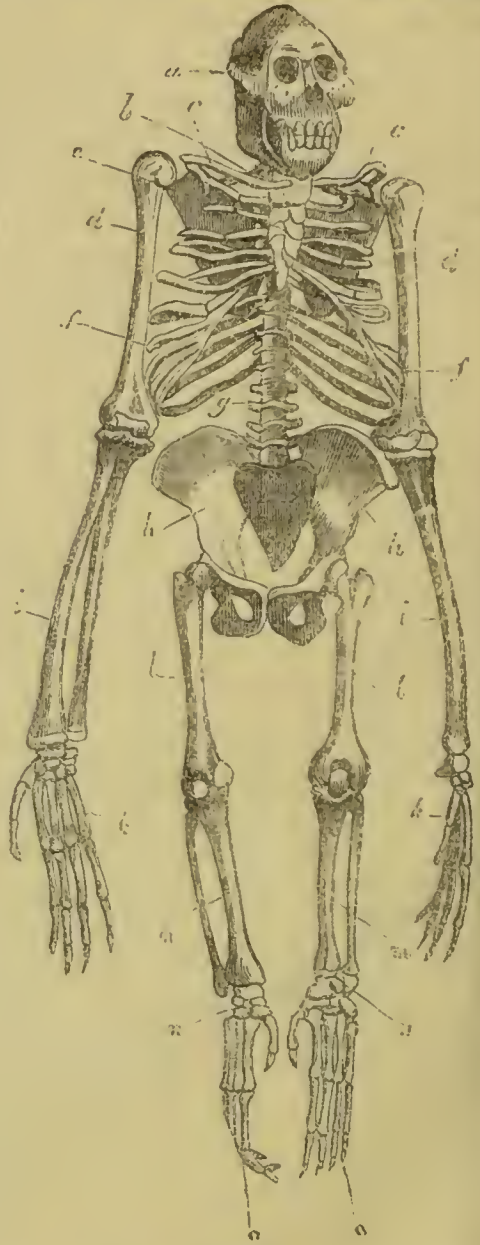


Fig. 2.

of the man (fig. 1, *i*) rests, and by the peculiar shape of the neck of the thigh-bone, a broad surface of support is secured. In man the bones of the thigh are much longer than in the oran, and wider apart

n proportion to their length at the summits. The pelvis (fig. 1, *i*) in man differs remarkably from that of the lower animals; it is much broader and firmer at the back, in that portion on which the bones of the spine (figs. 1 and 2, *g*) rest. The bones of the pelvis are also much curved below, for the support of the internal viscera, and also to render the sitting posture of man tolerable, which would be impossible were this part of his Skeleton constructed on the same principle as that of the oran-outan.

From the pelvis we pass to the spine, that part of the Skeleton included between the head and the pelvis, and which is composed of a number of small bones called *vertebræ*, (from *vertere*, to turn.) These are divided into three kinds—the lumbar (figs. 1 and 2, *g*); the dorsal; and the cervical (*b b*.) The vertebre in man are so constructed as to fit the spine for the erect attitude. They are arranged in the form of a pyramid, with the base below, and admit of a considerable amount of motion, but always so arranged that the centre of gravity is brought within the base. To the vertebre the ribs (*ff*) are attached, and brought together in front by a broad bone called the sternum (*ee*). The thorax or chest is thus formed, and in man it differs from the monkey by being shallower and more compressed in front, and wider from side to side; by this means the tendency of the trunk to press forwards, as it were, which is seen in the lower animals, is prevented.

We now turn to the upper extremities. They are attached by means of the blade-bone and collar-bone (*ee*) to the thorax. They differ not less in the two beings we are comparing than the lower extremities. In the oran the bones of the arm are much longer than those of the leg; in man they are of the same length. In the hand (*kk*), also, we observe great differences. The first thing that strikes us is the size of the thumb. In monkeys we have what is called an "opposable thumb"—a finger opposed to the others, by which grasping and handling are effected; but in man this thumb is capable of touching the points of all the fingers, whilst in the oran-outan the thumb is so small, and the fingers so long, that their tips can hardly be strained to meet—much less opposed to each other for use. It is the meeting of the thumb and tips of the fingers which enables man to use his hand at once, with so much precision and power, that, of all organs that distinguish him, this has been pointed out as the most important. Even were the structure of the hand more elevated in apes, it would be of

less use to them than it is to man; for it would only be when they were in the erect attitude that they could use it. But man's hand is always free, for his attitude is erect.

In all our reflections, however, on the superiority of the organs of man over those of the beasts of the field, we must not forget that they are directed to their great ends by the intelligence of the human race; and that without this power, man would speedily sink below the level of the brute, and probably would shortly cease to exist.

Beautifully are the various parts of the structure fitted and adapted to each other; and to their several uses and motions. Acting by means of muscles and ligatures in a manner at once simple and combined; full of the most exquisite contrivances for facilitating the necessary operations of human life; affording such full protection to the internal parts and combining, so evidently, lightness, with the strength necessary for this purpose; gifted, moreover, with such extraordinary powers for the reparation of injury; truly may we say of the whole fabric, that it is "fearfully and wonderfully made."

SKIN. This word appears to be of Saxon origin, *scin* in that language having the

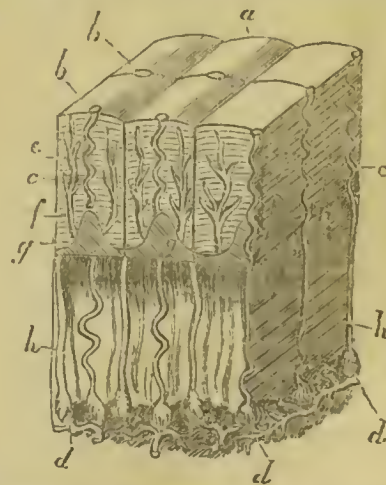


Diagram of the structure of the skin:—*a* Epidermis.—*b b* Pores.—*c c* Layers of epidermis and rete mucosum.—*e f* Inhalent vessels.—*g g* Papillæ of the skin.—*h h* Corium, or true skin.—*d d d* Bulbs of sudoriferous glands opening in the pores *b b*.

same significance: in its general application it means a covering, here, of course it is referred to as that of the human frame only, than which it is in its peculiarities of structure scarcely less wonderful. Let us describe it.



Although apparently very simple in its structure, the Skin is nevertheless a very compound organ; and when we consider the important functions it performs, and its relations to the rest of the body, we shall not be surprised at this. It is not only the seat of common sensation, but by means of the vapour it constantly emits in the form of perspiration, it becomes the great regulator of the heat of the body. For these purposes it is supplied with nerves, blood-vessels, and glands.

On examining a portion of Skin from the palm of the hand, or sole of the foot, from without inwards, we find that externally it presents a number of furrows, or lines, which are tolerably constant in particular parts of the body. On the elevations between these lines are seen a number of minute openings (*b b*) which are the terminations of the glands (*d d d*) that yield perspiration. These furrows and pores are in the upper layer of the skin, called epidermis (*e e*), or sear<sup>d</sup> Skin. This membrane is in some parts very thin, not exceeding  $\frac{1}{10}$ th of an inch in thickness, whilst in others, as in the sole of the foot and the palm of the hand, it is at least  $\frac{1}{12}$ th of an inch thick. It is this portion of the Skin which is elevated when what are called blisters are formed. When examined with the microscope, it is found to consist of minute flat cells, which have been formed below, and are gradually thrust upwards. Below this, but for the most part continuous with it, is another series of layers of cells (*e e*), and which were called, at one time, by the name *rete mucosum*, as it was supposed to be a separate membrane. The real nature of these layers of cells is, that they are all secreted on the surface of a tough fibro-vascular membrane, called the *corium*, or true skin (*h h*). The cells of the lower layer, called the *rete mucosum*, are softer and much less compressed than those which form the epidermis. It is amongst these cells that a certain set are found which are termed pigment cells. When separated they have a very distinct form, and are easily distinguished from all the other cells by their dark colour. This dark colour is dependent on the presence, in the cells, of a number of flat, rounded, or oval granules, not more than the  $\frac{1}{20000}$  of an inch in diameter. Now, it is found that these cells are always present in the skin of the dark-coloured races of mankind, and also in those parts of the skin of fair races which are of a dark colour. It is, then, to the presence or absence of these cells that the skin is indebted for its white or black colour. Where

they are very abundant, the skin has a black colour; and in proportion to their diminution are the various shades called red, yellow, brown, brunette, which are observed amongst the various races of mankind.

Occasionally there are born amongst the black races individuals in whom these pigment cells are not developed, and they remain white throughout their lives. In certain parts of the body these cells are found in fair races, as in the hair and the eyes, but even amongst these races such individuals are born. They are known by the name of *Albinos*, and are remarkable for white hair, and the absence of pigment cells in the eyes, which give the interior of these organs a red colour, from the blood-vessels reflecting the colour of the blood. This occurrence is also not unfrequent amongst domesticated animals. From these facts we must regard the dark colour of the skin as due to the constant action of light, upon a system in which there is a natural tendency to develop the pigment cells. See also *Ablution, Absorption, Perspiration, Secretion, &c.*

**SKIN BOUND.** This is an affection, peculiar to infancy, originating in chronic inflammation of the cellular membrane. The whole surface of the body swells and becomes hard, and the skin is cold and tightly bound. It may be relieved by warm baths, and gentle aperients.

**SKIN DISEASES.** Various classifications of these troublesome forms of disease have been attempted; that by Wilson is based upon division of the skin into *derma*, *glands*, and *hair follicles*, the first including as a matter of course the epiderma, the second being diseases of the perspiratory glands, and the third including those of the sebaceous follicles, and the fourth those of the hair and its follicles; there are in this arrangement numerous subdivisions into which we need not enter.

In the old system of Willan, Skin Diseases are divided into eight groups, founded upon the form of the eruption; they were: 1st, *Papulae*, or Pimples; 2nd, *Squamæ*, or Scaly; 3rd, *Exanthemata*, or those with rashes; 4th, *Bullæ*, those with blebs; 5th, *Vesiculae*, those with vesicles; 6th, *Pustulae*, with pustules; 7th, *Tuberculae*, with tubercles; 8th, *Maculae*, with spots. This arrangement, as being the most obvious in its characteristics, is perhaps the best for a popular description. We shall here include only the most common of the skin diseases, for the rarer sorts are those which only a professional eye can distinguish, and which are not open to domestic treatment.

A *Papular Eruption* is distinguished by the presence of a papula, or pimple: the two most common forms of this are *Lichen* and *Prurigo* (both of which see); of the former we have a well-known example in the *Red gum* of infants, sometimes called *Tooth rash* and *White gum*. The latter appears thus as to have in a great measure baffled inquiry as to its nature and origin; some attribute it to nervous irritation: old persons are troubled with a peculiar form of it, which has been called *Prurigo senilis*, which sometimes spreads nearly over the whole of the body, and is very difficult to cure. Children are seldom troubled with this form of disease, which most usually shows itself in persons of middle age. The proper treatment is salines and mild aperients; sometimes bleeding, at others Mercury, or Arsenic, should be given, but this should be under proper direction. A lotion composed of Hydrocyanic Acid 1 drachm, Glycerine 3 drachms, and Water sufficient to make half a pint, will be found useful to allay the itching; baths at a high temperature should be used, and a tolerably generous diet taken. See *Prurigo*.

*Scaly Eruptions* include *Lepra* and *Psoriasis*, (for a particular account of both of which see those heads.) There is some doubt as to whether these should be considered as separate diseases: at all events, the treatment would be very similar. The constitutional remedies are almost confined to Arsenic and Pitch: for local application there is nothing better than this Lotion:—Chloride of Zinc, 12 grains; Glycerine, 1 ounce; Water, 11 ounces.

*Rashes*. Under this head are included *Erysipelas* and *Erythema* (which see); also *Nettle Rash* and *Rose Rash*, an account of which will be found under their proper heads. The term *Exanthemata* applied to this class of Skin Diseases, also includes the eruptive fevers, *Measles*, *Scarletina*, &c., in which there is an inflammatory condition of the Skin, accompanied by redness of the surface. *Blebs* are large vesicles filled with thin serous fluid, exactly like those caused by burns and scalds; an account of these will be found under the head *Blains*.

*Vesicular Eruptions* are characterized by small elevations of the cuticle, having a glassy appearance, and generally containing lymph; this may be either transparent or opaque, colourless, or of a pale straw tint; they differ only from *Blebs* in the smallness of their size. The most common of these eruptions is *Herpes*, often called *Tetter*, of which the breaking out about the mouth of young people may be considered as the most

simple variety; it is attended by itching and swelling of the part; a number of vesicles appear, which, in a short time, run together, and form an irregularly-shaped blister, containing acrid lymph, which inflames any part of the skin which it touches. When this has escaped, a brown scab forms over the place, and protects it until there is a renewal of the healthy cuticle. This form of the disease is called *Herpes labialis*. The same kind of eruption occurs in various parts of the body, and is named according to its locality. (See *Ringworm*, *Shingles*, &c.)

In this group is also placed *Eczema*, or *Running Scall*, which sometimes spreads over nearly the whole of the body; when in its simple form, it shows itself on the hands, it can scarcely be distinguished from *Scabies*, or *Itch*, for which it is, no doubt, often mistaken. This eruption often presents itself under two aspects, being vesicular at the bends of the joints, and scaly on the plain surfaces. (See *Scall*.)

*Pustular Eruptions*. These are circumscribed elevations of the cuticle, containing pus, and ending in scabs or crusts; (for an account of these, see *Pustules*, with their several varieties, described under the heads of *Aene*, *Ecthyma*, *Impetigo*, and *Porrigio*.) Under this head are sometimes placed *Boils* and *Carbuncles*, which at first undoubtedly arise from slough of the true skin, although the disease afterwards extends to the cellular membrane. One very troublesome form of Pustular eruption is *Sycosis*, or *Chin Welk*, which always occurs on the chin, or other part occupied by hair follicles, which appear to be the seat of the inflammation; these pustules, which surround the roots of the hair, are hard, pointed, and very painful, and the scabs which succeed them, when removed in the operation of shaving, leave red shining tubercles, which in time sink to the level of the surrounding skin. This form of disease is by no means common.

*Tubercular Eruptions* are hard, solid, circumscribed swellings of the cutis, with or without an inflamed base; they are of a chronic character, and end in resolution, suppuration, or ulceration; the only form of this class which is at all common is *Lupus*, sometimes called *Noli me tangere*, or *Corroding Tetter*. This generally appears in the face, and commences as a thick, hard, red swelling of the skin, which is gradually covered with a brown scab, without any tendency to destructive ulceration, or with ulcerating edges which gradually extend, eating away the skin and subjacent tissues; the progress of this disease is steady al-



figurement of the face. Little in the way of treatment is to be done for it; palliatives only can be used, and these should be under the direction of the medical adviser. (See *Lupus*.)

*Marks or Spots* are discolorations of the skin which are of a permanent character; they are sometimes accompanied by a change of structure, but seldom have any effect upon the general health. (See *Freckles*, *Macula*, *Nævus*, &c.)

*Corns*, *Warts*, *Moles*, and other excrescences of the skin, which may be considered as diseased growths of that organ, are spoken of under their several heads, as are also the *Hair*, *Nails*, and [other appendages of the skin, with their several affections. It would be quite useless to attempt to lay down any general rules for the treatment of this class of diseases, many of which are the most intractable and obstinate of any that the surgeon has to deal with. Although mostly agreeing in the one circumstance of arising from inflammatory action in the cuticle, or tissues directly beneath it, these diseases assume such a variety of forms and characters, and are, moreover, so modified by the constitution and habits of life of the person whom they attack, that a mode of treatment which would be beneficial in one case would probably be hurtful in another. Under the several heads referred to we have given such directions as are considered likely to be of service, in so far as domestic treatment may go. Let us now endeavour to impress upon our readers that in all these diseases, cleanliness is the great curative desideratum; without it all remedies will be of little avail; very many Skin Diseases are owing entirely in the want of proper care and attention to sanatory rules, and few of them can be completely cured without a regular and systematic use of soap and water. See *Bathing*, *Soap*, *Washing*, &c.

**SKULL.** (A word of Scandinavian origin, the root being probably *skal*, a shell.) It is hard thick case which encloses the brain and forms the head, consisting of eight bones closely joined together; these are—the frontal and occipital bones, forming the dome; the temporal and parietal bones, forming the temple and sides; the sphenoid and ethmoid bones, concerned in the formation of the orbits and nose. For diagram, see *Head*, vol. i. p. 358; see also *Brain*, *Cranium*, *Scalp*, *Skeleton*.

**SLEEP.** That state or condition of natural unconsciousness in which the involuntary functions, such as those of nutrition, secretion, &c., go on as usual; but the voluntary

powers are quiescent. Sleep has been well called by the poet, "Tired Nature's sweet restorer," and, although neither the physiology nor the psychology of the state has been very clearly understood, yet the most reasonable theory is that which assigns it to exhaustion of nervous energy. "The occasional suspension of sensorial activity," says Dr. Carpenter, "is requisite for the reparation of the destructive effects of that activity; so that however unfavourable may be the external circumstances, sleep will supervene as the result of exhaustion, when this has been carried very far." Leibig puts forth the same opinion in somewhat different words, and Dr. Whewell and other eminent physiologists agree therein.

A certain amount of Sleep, then, is necessary to repair the exhaustion caused by activity, and enable men to perform the duties allotted to them. Absence of this necessity of healthful existence would bring on madness; too much of it would be likely to produce apoplexy. Children and weakly persons require more of it than others; but for a healthy adult an average of seven hours may be considered sufficient. See *Rest*.

**SLING.** A kind of bandage adapted for the support of a wounded limb; examples of this will be found under the head *Fracture* (vol. i. p. 292-3.)

**SLOUGH.** This is a dead portion of tissue, which separates from the living animal body when mortification of a part ensues; thus a Sloughing Ulcer is one in which destruction of vitality, and rejection of the tissue goes on. See *Ulcer*.

**SMALL POX** (Latin, *poc*, a bag or pouch). The epithet small was added in the 15th century. This, like Scarlet Fever and Measles, belongs to the class of eruptive fevers; it attacks persons of all ages, but the young are most liable to it. At no particular season of the year is it more prevalent than at any other, nor does climate appear to be influential in averting or modifying its visitations. When it occurs naturally, the premonitory *symptoms* are those of other fevers of its class; there are usually cold chills, pains in the back and loins, loss of appetite, prostration of strength, nausea, and sometimes vomiting; with young children, there are sometimes convulsions. About 48 hours after these symptoms set in an eruption of hard, red pimples begin to overspread the face and neck, gradually extending downwards over the trunk and extremities. Each pimple is surrounded by the peculiar dull red margin termed *areola*, and has a central

pression on the top, containing lymph; at this period the eruption is decidedly vesicular, but it becomes afterwards pustular; this change takes place on about the fifth day of its appearance, when the central depression disappears, suppuration takes place, and the vessels are filled with matter, which shortly after oozes out and dries into a scab. In about ten days this falls off, and leaves a pale purple stain like a blotch, which gradually fades, unless the disease has penetrated so deeply as to destroy the true skin, in which case a pit, or, as it is usually called, a "pock-mark" remains for life.

The primary fever of this disease lessens as soon as the eruption appears; but after this has left the face, and travelled downward, attacking successively the lower parts of the body, a secondary fever sets in, which is more severe than the first, and not unfrequently assumes a typhoid character.

Small Pox may be either *distinct*, sometimes called *discrete*; or *confluent*: in the former case, the pustules are perfectly distinct from each other; in the latter, they run into each other; this latter is the most dangerous form of the disease, the fever being more intense and rapid, and having no intermission; it goes on increasing from the first, and frequently by its violence in nine or ten days, so exhausts the system, that coma, delirium, and death ensue, preceded by convulsions, hæmorrhages, bloody stools, dysentery, and all the train of symptoms which indicate that a virulent and fatal poison has entered into the circulation.

By all this it will be evident that Small Pox is not a disease to be trifled with. As soon as the premonitory fever comes on, an emetic should be administered, and followed by a purgative of a tolerably active nature; then keep the patient on spare diet (certainly no meat), and give plenty of warm diluent drinks; keep the bowels moderately open by means of saline aperients; let the patient have plenty of fresh air, and sponge the skin with cool or tepid water, as may be most agreeable, to diminish the heat of the body. Sometimes there is not energy in the system to develop the pustules with sufficient rapidity; in this case, nourishment and stimulants should be given in the form of broths, wine whey, &c.; warm, or mustard foot-baths should also be resorted to, and to allay irritability, a 10 grain Dover's Powder may be administered at bed-time, or a  $\frac{1}{4}$  of a grain of Morphine, in Camphor mixture. A good nourishing diet will be required in the secondary stage of the fever, and if it assumes a typhoid cha-

acter, the treatment should be the same as that of typhus fever. Frequently the face is much swelled, and the eyelids closed; in this case, rub the latter with Olive Oil, and bathe the whole with Poppy fomentation. If the throat is sore, use a gargle of Honey and Vinegar, 1 tablespoonful of the former, 2 of the latter, added to a  $\frac{1}{2}$  pint of Water or Sage Tea. If there is much headache, cut the hair close, apply Mustard poultices to the feet, and a spirit lotion to the head; to reduce itching, apply to the eruptions a liniment composed of Lime Water and Linseed Oil, equal quantities; to check diarrhoea, give Chalk Mixture with 5 drops of Laudanum in each dose; if perspirations are too copious when the eruptive fever has subsided, take Acidulated Drinks. Smearing the eruption with Mercurial Ointment, or puncturing each pustule, and absorbing the pus with wool or cotton, has been recommended, to prevent the deep pitting which is so great a disfigurement to the face.

There is no disease more certainly and decidedly contagious than this; after imbibing the poison a period of 12 days generally elapses before the commencement of the fever, and during this time no inconvenience may be experienced. Besides breathing the effluvia arising from a person attacked, Small Pox may be communicated by inoculation with the matter of its pustules, and the resulting disease being of a milder character, this method was formerly much practised to guard persons from a spontaneous attack; since, however, the introduction of Vaccination by Dr. Jenner this practice has been abandoned. This disease is frequently epidemic, and the statistics of its different visitations show that the mortality of those attacked who have not been vaccinated is 1 in 4, whilst of those who have, it is not 1 in 450; a strong argument this for *Vaccination* (which see). Until the time of Sydenham, Small Pox and Measles were considered to be modifications of the same disease; it is a subject of dispute whether the former was known to the ancients. Rhazes, an Arabian physician, is the first author who expressly mentions it, and he confounds it with Measles; in scientific language it is now called *Variola*.

SMELL. The sense, as we have already explained (see *Nose*), resides in the olfactory nerves, which are distributed over a membrane, that lines the nostrils and spreads over the interior surface of several bones of the face, called "spongy bones," into the frontal and sphenoidal processes. Odours



cognizance of by this expanded nerve, which stands as it were sentinel over the mouth, and gives warning of the approach of any deleterious substance. There are also attached to the organ of smelling other delicate nerves, which are excited into action by any stimulant like snuff and ammonia, and this, even although the true olfactory nerve be deprived of its sensibility.

**SMOKING.** This, if it be not already one of the "darling vices" of our age and country, is fast becoming so. Every boy of sixteen now smokes—not because he likes it, but because it looks manly, as he fancies. So the pipe comes as naturally as the hat and "stick-up" collars; and it were well if it had no more pernicious effect. To say nothing of the desire for drink which it engenders, of the habits of extravagant expenditure to which it leads, it is of itself destructive of health and energy. The first effect of tobacco-smoking is that of a stimulant, the secondary effect that of a sedative; there is a paralysis of the nervous system, which, although extremely minute in degree, produces a dreamy state of calm repose, which is pleasing enough, but very enervating both to mind and body. It has been sometimes urged that, after smoking, the mind is capable of more profound and concentrated thought, and it may indeed seem so; but this is not that there is really any accession of mental power, which is, indeed, diminished by the effect of the narcotic, but that the physical sensations are rendered less acute, and, therefore, less disturbing to the mind. "But we generally find," says a modern authority of the smoker, "that when it is necessary that his thinking and observant powers should be used together, he is less effective than his non-smoking neighbour."

There can be no doubt that smoking tends greatly to check perspiration; the secretion which should pass off by the skin is determined to the kidneys—that the proper action of the former organs is impaired, the excretion of urine increased, and also the tendency to urinary disorders. It is but seldom that a person much addicted to smoking has a florid complexion: he becomes pale and sallow, and often feels, if he does not complain of, pains in the head and loins, and costiveness, all arising from impaired nervous energy: there is, too, in old and inveterate smokers a flabbiness and want of tension about the muscles generally, and especially of those about the heart. Actual paralysis is more frequent than is generally suspected, a result of this pernicious habit,

whose universal indulgence threatens to undermine the stamina of the rising generation, and greatly impair the hitherto indomitable energy of the Anglo-Saxon race. See *Tobacco*.

**SNAKEROOT.** See *Senega*.

**SNEEZING.** This is caused by irritation of the extremely sensitive membrane which lines the nostrils; it is a convulsive or spasmodic effort to expel the cause of irritation by sending the air forcibly through the passage; it is generally a symptom of cold, influenza, or measles, or some other disease, which involves the respiratory passages when violent and long-continued, it is most likely to be relieved by emetics.

**SNOW BLINDNESS.** An affection of the eyes, common to Esquimaux and other much exposed to the glare of snow. As protection to the eyes, persons living in snowy countries frequently wear a kind of goggles, called *Snow eyes*, made of very light wood, and resting on the bridge of the nose, like spectacles.

**SOAP** (Latin *Sapo*). This may be described as a kind of salt formed by the combination of oil or fat with alkali. The purest and best is that called Castile, or curd Soap. It is, or should be, made with olive oil and soda. Common Soap contains resin and other materials; soft Soap is made of oil and potash; it frequently contains train oil, and other impurities. Soap, in its action on the human system, is anti-acid, diuretic, and purgative; it is a common ingredient in pills, especially in those in which the purgative resins are used, because it renders them more soluble in the stomach; it is sometimes employed in large doses to dissolve lithic calculi in the bladder. The common dose is 10 grains; but as much as a drachm may be given.

Applied externally, Soap is a rubefacient; it enters into the composition of the compound Soap Liniment commonly known as Opodeldoo, and other lubricating preparations; it is also an ingredient in several cerates and plasters, being a detergent in cutaneous diseases, and forming in combination with other materials a good protective covering for wounds, &c., being less irritating than the resin plaster often proves. In the Compound Soap Pill of the Pharmacopœia it is used merely as a vehicle for the Opium, of which 1 grain is contained in a 5 grain pill. The Compound Sulphur Ointment, useful in itch, contains a proportion of Soft Soap.

**SODA.** An alkali obtained from the ashes of marine plants; it was formerly called mineral alkali, from its being found native

state it was also called *Natron*, *Kelp*, and *Barilla*, these being, properly, impure carbonates of Soda.

Many preparations of this substance are used medicinally: indeed, it is one of our most valuable remedial agents; in its general action it is anti-acid and anti-lithic, diuretic, diaphoretic, and antiphlogistic; it is given in dyspepsia, heart-burn, flatulency, gouty and rheumatic affections, lithic deposits in the urine, coughs and mild inflammations. We give a list of its principal forms of administration:—

*Carbonate and Bicarbonate*, the latter being formed by saturating the former with carbonic acid gas; it is more generally used than the carbonate, being milder and less irritating; dose, from 1 to 10 grains for children, from the latter quantity up to a drachm for adults; Effervescing Draughts and Soda Water are prepared from this.

*Acetate, Citrate, and Tartrate*. The first is a white soluble salt, with a pungent bitter taste; given in doses from a scruple to a drachm as a diuretic, from 2 to 4 drachms as a purgative; the second and third are formed when an effervescing draught is made of the carbonate, with citric or tartaric acid.

*Biborate*. (See *Borax*).

*Potassio-Tartrate*. (See *Rochelle Salt*, and *Seidlitz Powders*).

*Phosphate*. Made by adding a solution of the carbonate to one of the superphosphate of lime obtained from bone earth; this is a mild saline cathartic, having little taste; it is therefore less likely to cause nausea than some others; it may be safely given in fevers and inflammatory affections even of the bowels, and to pregnant women; it is a good solvent for lithic deposits, and is therefore useful in gouty and rheumatic disorders; it is given to rickety children with the intention of supplying the deficiency of phosphoric acid in the bones. Dose, as an antilithic, &c., from 1 to 2 drachms; as a purgative, from  $\frac{1}{2}$  an ounce to three times the quantity, in gruel or broth.

*Sulphate and Bisulphate*. The former is largely produced in the manufacture of the carbonate from common salt; it was at one time a favourite aperient medicine, and was generally called *Clauber Salts* (which see).

The latter is a cooling purgative resembling the bisulphate of potash; it is obtained as a residue in making hydrochloric acid. The dose is from  $\frac{1}{2}$  a drachm to 2 drachms, as a diuretic; from 2 to 6 drachms as a purgative.

of these substances has been recommended by Dr. Hassall and others, for destroying fungous growths in the stomach and elsewhere; it is also said to be useful in the treatment of Asiatic cholera. The dose is from  $\frac{1}{2}$  a drachm, to twice or thrice that quantity. The hydrosulphate is used in photography as a solvent for iodide of silver; it is also used to destroy parasitic vegetation in the same way as the former preparation. On the Continent it is given as an alternative in skin diseases, and it may be given as a purgative in the same way as the Sulphate—dose, 10 grains to a drachm; as a cathartic, 2 to 4 drachms.

*Chloride of Sodium*. (See *Common Salt*).

*Valerianate of Soda*. This is prepared by oxidising fusil oil by means of bichromate of potash, and combining it with caustic soda to form the salt. It possesses the odour and properties of valerianic acid, and is sometimes given as an antispasmodic; but its chief employment is in the manufacture of other valerianates.

*Chlorinated Soda* owes its properties to the large proportion of chlorine which it contains; it is a good antiseptic and deodoriser, and is sometimes administered as a stimulant and anti-putrescent in typhus and other malignant diseases, as well as in chronic affections of the liver. Externally, it is applied, largely diluted, to foul indolent ulcers, and the sores caused by some cutaneous diseases; it is also used as a gargle in putrid sore throat, and a mouth wash, where there is foetid breath from decayed teeth or ulcerations; as well as in local baths for hepatitis, &c.

There are other preparations of Soda which are sometimes employed medicinally, but the above are all we need mention, except

**SODA WATER**, which, when properly made, contains about 20 grains of the bicarbonate to the half pint, and is strongly impregnated with carbonic acid gas; it is best prepared in a machine, or a gazogene (like that represented in Vol. I, p. 317), although it may be prepared for immediate use by dissolving 2 scruples of bicarbonate of soda in half a pint of Water, and adding  $\frac{1}{2}$  a drachm of Tartaric Acid. In Thomson's "Guide for the Sick Room" we find the following receipt which we have found very useful in many cases—"Heat, nearly to boiling, a teacupful of milk, and dissolve in it a teaspoonful of refined sugar; put it into a large tumbler, and pour over it two thirds of a bottle of Soda Water. This is an excellent mode of taking milk when the stomach is



to feel oppressed by milk alone." SODIUM is a peculiar metal of which soda is a protoxide, it was discovered by Sir H. Davy in 1807, a few days after he had discovered *Potassium*.

SOFTENING, called by the French surgeons *Ramollissement*. A term applied to a diminution of the natural and healthy consistence of organs, as of the brain, which commonly occasions paralysis.

SOLANIN. The active principle of the *Solanum Dulcamara*, or Bitter Sweet, in which it is combined with malic acid. See *Woody Nightshade*.

SOLAR PLEXUS. An assemblage of ganglia, which are distributed to all the divisions of the aorta. See *Ganglia*.

SOLEUS (Latin *solea*, a sole). A muscle of the leg shaped like the fish called a sole. It arises from the head of the fibula, &c., and is inserted into the os calcis; its office is to extend the *Foot* (which see).

SOLIDS. These are bodies, the cohesion of whose particles is so strong, that they can be moved only as a combined mass, being the opposite of *Fluids* (which see).

SOL-LUNAR INFLUENCE. This is the influence which is supposed to be produced on various diseases by a conjunction of the sun and moon. Thus it has been noticed that paroxysms and exacerbations in fever take place often at spring tides, and the crises of neap tides. Whether this is owing to any peculiar electrical state of the atmosphere at such times, we cannot tell; and, therefore, without professing any great belief in planetary influences, we simply allude to the fact.

SOLUTION (Latin *solveo*, to dissolve.) This is first, the result of an affinity between bodies in different states with regard to cohesion. Liquids are called *solvents*, because they act upon, or hold in solution, either solids or gaseous substances. The influence of heat upon the power of Solution corresponds with the difference between cohesion and elasticity. Upon solid bodies it generally increases the power of the solvent by diminishing their cohesion: upon aeriform bodies it diminishes the power, by adding to their elasticity.

*Solution* also means a fluid which contains another substance dissolved and intimately mixed with it. The solutions of the Pharmacopœia are now called *Liquors* (which see).

SOMNAMBULISM (Latin *somnus*, sleep, and *ambulo*, to walk), Sleepwalking. It is not very uncommon for persons to fall into this curious state, which appears to be one be-

those psychological phenomena which, like mesmerism, is as yet very imperfectly understood. Somnambulists are thought by some to be endued with a kind of clairvoyance, or inner sight, which is diffused over the whole body, but is especially seated at the epigastrium and the fingers' ends. Notwithstanding which, however, the sleep-walker is liable to dangerous falls, and other accidents; it is therefore necessary that he should be carefully watched and guarded; above all, he should be never rudely nor suddenly disturbed when in this state, as a fright or shock of any kind may be attended with very serious results.

SOPHISTICATION. A term applied in pharmacy to the *adulteration* of any drug.

SOPORIFICS (Latin *sopor*, profound sleep). These are substances which produce sleep, (see *Narcotics*.) sometimes called *Hypnotics*.

SORBIC ACID. An acid obtained from the berries of the Mountain Ash, called by botanists *Sorbus*, or *Pyrus Aucuparia*. This and malic acid appear to be identical: its salts are called *Sorbates*.

SORDES. The viscid matters discharged from ulcers, &c.

SORE BAY. A disease which is endemic at the Bay of Honduras; it commences with an ulcer, and is considered by Dr. Moseley as true cancer.

SORE THROAT. This is commonly a symptom of inflammatory fever, and is often the result of a simple cold; some persons are peculiarly liable to it, and experience great difficulty of swallowing from relaxed *Uvula* (which see). Sometimes in Sore Throat, there is simply inflammation of the mucus membrane, and when this is the case it will, probably, pass away in a day or two, with a little careful nursing and aperient medicines. Should it extend into the air passages, causing cough and catarrhal symptoms, it becomes a more serious business, and medical advice should at once be sought. In the meantime a Saltpetre gargle should be used, or Sal Prunella balls, one being put into the mouth occasionally and allowed to dissolve; hot bran poultices may also be placed about the throat, which, at a later stage may be rubbed with a liniment of Oil and Hartshorn.

There is an erysipelatous form of Sore Throat which is highly dangerous, and requires very active treatment: a strong gargle of Lunar Caustic must be used in this case, or the inflamed part must be pencilled with the Caustic in the stick; if it extends to the larynx and air passages this frequently proves fatal. This is a distinct

of disease from *Diphtheria*, which has recently proved so fatal. See *Throat, Dymanche, Quinsy, Croup*.

**SORY.** The ancient name for sulphate of iron. (See *Copperas*.)

**SOUND.** This is the name given to a surgical instrument used for exploring the cavities of the body; it is most commonly introduced into the bladder to ascertain the presence of calculi. To ascertain by the use of the stethoscope, or other means of auscultation, the condition of the lungs, is commonly called "to sound" a person. See *Auscultation, Percussion, Stethoscope*.

**SOUP.** This is the substance of any kind of flesh dissolved by boiling; it varies in character according to the principal ingredient, seasoning, &c. Rich soups should never be taken by invalids nor persons of weak digestion: for such, *Beef Tea* and *Broths* are best. (See those heads).

*Portable Soup* is flesh freed from fat and all putrescent matter, boiled down to a jelly, and evaporated; it may be had in the form of cakes, which may be quickly made into Soup by pouring boiling water on them, and seasoning with salt, &c.; it will keep good for years, and is admirable for a sea voyage. See *Preserved Provisions*.

**SPANISH FLY** or *Blister Beetle*. This is the *Cantharis Vesicatoria* of naturalists, an insect about  $\frac{3}{4}$  of an inch long, found



abundantly in the south of Europe, but rarely seen alive in England; it claims a place here by virtue of its stimulant and rubefacient properties; taken inwardly it acts especially on the urinary organs; it is sometimes given in paralysis of the bladder, obstinate gleet, and, but rarely, as a diuretic in atonic dropsy; dose of the Powdered Flies, from  $\frac{1}{2}$  a grain to 2 grains; Tincture, from 10 minims to 40, increased gradually; Extract, from  $\frac{1}{4}$  to  $\frac{1}{2}$  a grain; great caution is required in the administration of this irritant poison. See *Cantharides, Lytta*.

**SPARGANOSIS** (Greek *spargao*, to tumify). A term applied by Dioscorides to puerperal tumid leg, or what surgeons now call *Phlegmasia dolens*.

**SPASM** (Greek *spao*, to draw), is an irregular contraction of the muscles: it may be divided into three kinds, 1st *Constrictive Spasm*, attended with contraction or rigidity, sometimes both, as *Locked Jaw, Tetanus, Wry Neck* (which see). 2nd *Chronic Spasm*, the violent agitation of one or more muscles in sudden or irregular snatches, as *Hiccough, Sneezing, &c.* (which see); 3rd *Synchtonic Spasm*, the tremulous, simultaneous, and chronic agitation of various muscles, as *St. Vitus' Dance, Shaking Palsy, &c.* (which see).

*Spasm in the Stomach* constitutes one form of *Colic* (which see), it is not of unfrequent occurrence, and may, generally, be traced to the presence of some indigestible matter. Its symptoms are sudden and violent pain in the bowels, eructation of wind, and, probably, attempts at vomiting. Pressure and warm applications frequently relieve the pain for a time, but the offending substance must be discharged before permanent relief can be afforded. A dose of Castor Oil, with 10 drops of Laudanum, and 10 of Essence of Peppermint, or else, given in Brandy and Water will, probably, be effective; or 6 drachms of Tincture of Rhubarb with the above quantity of Laudanum. If there is a disposition to vomit, it may be encouraged by an emetic and plenty of warm water. After either of the above, give a tablespoonful of this mixture every half hour until the bowels are freely relieved, and the pain abated—Rhubarb and Carbonate of Soda, of each 1 drachm, Aromatic Spirit of Ammonia 2 drachms, Laudanum  $\frac{1}{2}$  drachm, Water 6 ounces. When the attack has passed off, great attention should be paid to the state of the stomach so as to prevent a recurrence.

*Spasm of the Heart* sometimes occurs in peculiar states of that organ; its symptoms and mode of treatment are described under the head of *Angina Pectoris*.

*Spasm of the Urinary Passages* is, generally, the result of irritation caused by gravel in the *Bladder* (which see), also *Urine*. Heat is the best application for immediate relief, in all cases of colic, cramp, or Spasm, and one that may be safely resorted to.

A treatise on Spasms or Convulsions, is sometimes called *Spasmodology*; and to the spasmodic grin described under the head *Risus Spasmodicus*, the name *Spasmus Cynicus* is sometimes applied.

**SPATULA** or **SPATHULA** (Latin diminutive of *spatha*, a slice). A kind of blunt flexible knife used by apothecaries for various manipulations; the blade is generally of steel or



times the wholes of bone, being intended for those substances which have a chemical action on the metal; the cut represents an



ordinary iron spatula suitable for domestic use. The spatula used for spreading plasters is of a different make altogether. See *Plasters*.

**SPA WATER.** The term Spa has of late been applied to any mineral spring, but it belongs properly to that of the town of that name in Belgium, situated about 30 miles from Aix la Chapelle. The water of this spring is a highly carbonated chalybeate, containing in the pint  $\frac{2}{3}$ ds of a grain of Oxide of Iron, and 15 cubic inches of Carbonic Acid Gas, with but a very small quantity of aperient Salts: hence it is more heating and astringent than most chalybeate waters.

**SPEARMINT.** This is the *Mentha Viridis* of botanists, of the natural order *Labiata*, a common British plant found in marshy places. Like its congeners, Peppermint and Pennyroyal, it is valuable for its carminative and aromatic properties, which reside in its volatile oil, of a pungent and



peculiar odour; the dose of this is from 2 to 5 minims in Sugar; of the Spirit, the dose is from  $\frac{1}{2}$  to 2 drachms; and of the Infusion 1  $\frac{1}{2}$  ounces; given every two hours or so, this sometimes allays sickness. The Dis-

for other medicines.  
**SPECIFIC.** If a medicine acts on a particular organ, or uniformly checks any particular disorder, we say that it has a Specific action, such is the case with cinchona in intermittent fever, and mercury in syphilis. A quack medicine is generally vaunted as an infallible or universal Specific; there is no such thing known.

**SPECTACLES.** These common aids to defective vision appear to have been invented towards the latter part of the thirteenth century, at all events, this is the earliest recorded period of their use in this country. They are employed, as our readers are aware, to relieve the inconvenience caused by short sight, long sight; to supply the absence of a natural lens after an operation for cataract; to protect the eyes from too strong a glare of light, whether of the sun, or artificial; and by their magnifying powers to enable aged and otherwise weak sighted persons to see clearly, objects which, without such assistance, would be dim, or altogether invisible to them.

To answer these different purposes, Spectacles are made with either concave, convex, or coloured glasses; and it is in the exact degree of convexity or concavity, and particular make and adjustment to peculiar cases, that their utility depends.

*Concave Glasses* are intended for short-sighted persons, they are made of various degrees of concavity, so as to suit every form of convexity of the cornea; it is only by trial that one can ascertain the exact degree required for a particular case, a higher degree of concavity than that numbered 6 or 7 is seldom wanted.

*Convex Glasses* are for long-sighted persons, who find it difficult to distinguish objects close to them: they are seldom required to be of high power at first, but from time to time the power has to be increased. For persons who have lost the lens by operation, a very convex glass has to be used.

*Coloured Glasses* are either of green, blue, or grey: the latter are sufficient for trifling cases, and as any kind of work can be seen through them, they do not interfere with the ordinary occupations. For cases of inflammation, which are aggravated by light, and where there is a weakened or irritated condition of the nerve, the dark blue or green should be used; those which are made with a hinge, with a double lens, are best, as they prevent the light from entering at the side.

The accuracy and truth of grinding glasses is of very great importance. Their surfaces

of this few unprofessional persons can form a correct judgment. The cheap Spectacles are mostly of soft glass, which are merely cast, and afterwards polished; they easily scratch, and soon become covered with defects, so that they injure rather than assist the sight of the wearers. Those called "pebbles," if they are truly such, are much harder, and are carefully ground, so as to be perfectly crystalline, and free from flaws of any kind. In the long run, it is always most economical to use such, and to go to a respectable optician, who, if he charge a somewhat high price, gives the result of his skill and experience (which is surely worth something), and who will, moreover, change the glasses as often as may be necessary, provided they do not quite suit.

How to choose good Spectacles? is a problem which has puzzled thousands. We do not pretend to enable our readers to solve it; but, putting aside a deal of nonsense and quackery which has been said and written on the subject, we advise them to use only such as are pleasant to the eyes, and never to have a higher magnifying power than they are absolutely obliged. Let them begin with the lowest that will enable them to see with sufficient clearness, and increase it only when the necessity comes. This it will do quite soon enough, for the eye can not be kept long at the same pitch; and there will in most cases, especially in old age, be increasing flatness of the cornea, which will render imperative a corresponding increase in the power of the glasses.

It is very essential that the framework of Spectacles should fit comfortably to the head, and be of such form as to bring the centre of each lens exactly opposite to the centre of the eye it is intended to cover.

The endless variations met with in the width between the eyes, the total width of the face, and the form of the nose, render it frequently difficult to suit an individual out of even a very large stock. Convex Spectacles, being used for viewing near objects, may generally be placed lower down upon the wearer's nose than those used by short-sighted persons, who are compelled to hold up their heads in an awkward manner, unless the glasses rest naturally in such a position as to enable him to see distant objects with the head erect. This is accomplished by having the bridge between the glasses nearly on a line joining their centres. The oval form is usually preferred for the lenses, because it allows most room for the motion of the eye in a lateral direction, without giving unnecessary weight.

were contrived in order to allow considerable latitude of motion to the eye without fatigue, by confining the shape of the glasses to that of the eyes. This is effected by the use of lenses, either of a meniscus or of a concave convex form, the concave side being in both cases turned towards the eye. Divided Spectacles, each glass consisting of two half lenses, are sometimes used, the upper half of each glass being occupied with a concave lens, or one of very slight convexity for seeing distant objects, and the lower half has a strong magnifier for examining things near the eye.

From what has been stated above, it is evident that much care and judgment are required in the choice of Spectacles. The specious name of "Preserver" has been given to convex glasses of 36 inches focus; and many persons have entertained an opinion that such spectacles have the property of arresting the progress of that natural change, by which most individuals become long-sighted as they become older; but this opinion is entirely without foundation. The only Spectacles to which the wearer can with propriety apply the name are those which are suited to his particular case. Such Spectacles, although they cannot stop the natural changes of the eye, may greatly diminish their inconvenience, and even retard their progress, and, therefore, may not unfitly be termed preservers; but few things can be more injudicious than the use of Spectacles before they are actually wanted, under the fallacious idea that they will maintain the sight unimpaired, notwithstanding the organic changes which accompany increasing years. See *Light*.

STRANGURY (Greek *strango*, a drop, and *oyron*, urine). Applied to temporary suppression of the urine, which is only passed in drops and with great pain: this is not unfrequently caused by the application of a blister. Demulcent drinks, taken freely, and hot fomentations of the part, will generally afford relief. The following mixture will also be of service:—Bicarbonate of Soda and Nitrate of Potash, of each 1 drachm; Tincture of Hyoscyamus, 2 drachms; Mucilage of Acacia, 1 ounce; Camphor Mixture, 6½ ounces: take two table-spoonful every six hours.

SPECULUM (Latin for a mirror or looking glass). In surgery an instrument used for dilating and keeping open, certain parts of the body, in order to their careful examination. It is made with a bright interior so as to reflect light on the part, hence the name.



speech! we constantly exercise it without thinking of the many curious mechanical contrivances by which we are enabled to utter vocal sounds, and of the mysterious communication between mind and matter, which determines the nature of those sounds. We cannot, however, dwell upon this here, as we intend to say more about it when we come to speak of the *Voice* and *Vocal Organs*.

We shall, at present, briefly allude to Speech as an indication of a healthy or unhealthy condition of the whole, or part of the human system. Distinctness of Speech we look for from one whose bodily health is good, and articulative organs properly formed, and unaffected by disease. When the Speech is not distinct, we know that there must be some organic defect, or some functional or other derangement, probably of a nervous character. Thickness of utterance is a symptom of intoxication, here the disorder is nervous, as it also is in paralysis and other diseases of the brain. *Stammering* is rather a functional disorder than a disease, we shall have more to say on this under its proper head. Indistinct articulation in young children is sometimes the result of their being what is called "Tongue tied," the organ being too much confined in its motion by the natural bridle or *Frænum* (which see), also *Tongue*.

**SPERMA** (Greek *sperio* to sow). The seminal fluid. (See *Semen*). From this root we have the terms 1st. *Spermatic*, belonging to the testes, as applied to arteries, veins, &c.; 2nd. the *Spermatic Cord*, which is composed of the large excretory duct of the testes, called the *vas deferens*, the spermatic artery, and vein, &c.; 3rd. *Spermatocele*, a swelling of the spermatic vessels, or of those of the testicles; 4th. *Spermatorrhæa*, seminal weakness, brought on, generally, by habits of criminal self-indulgence, impotency; involuntary emissions of semen, and other distressing symptoms, are the concomitants of this disease, for which we can prescribe no mode of treatment, suitable alike for all cases, except it be entire discontinuance of all the practices which caused it; tonic and strengthening medicines; a regular and temperate life, with gentle exercise, sea bathing, and a tolerable generous diet. We have more than once in these pages cautioned the victim of vicious indulgences against putting any trust in advertising quacks; they cannot be *speedily* cured, except by such means as are likely to entail bad after-consequences. See *Impotency*, &c.

*ketos* a whale). A substance obtained from the head of *Physeter macrocephalus*, or Sperm Whale, a species inhabiting the southern oceans. Chemical analysis shows that a hundred parts of Spermaceti consists of 60 parts of margaric and oleic acids, 40 of ethal. and 9 of a yellowish extractiform substance. It is bland and demulcent, with considerable nutritive qualities when taken internally. Its chief employment however, is externally, as an ingredient in cerates and ointments. One of the best healing applications for cuts &c., is the Spermaceti Ointment, or Simple Cerate, made with this Substance, White Wax, and Olive Oil.

**SPHACELUS** (Greek *sphazo*, to destroy). Complete *Mortification* (which see): it is generally preceded by imperfect mortification or *Gangrene* (which see). There is a kind of Sphacelus which sometimes attacks young children about the mouth or cheeks, or the external parts of the female organs of generation. Besides other names it has been termed *Necrosis Infantilis*, *Gangrenous Aphthæ*, and *Water Canker*.

**SPHENOID** (Greek *sphen*, a wedge, and *eidos* likeness). Wedge-like, as applied to a bone of the skull, which wedges in, and locks together, most of the other bones. *Sphenoidal*, from the same root, is a term applied to the wedge-like fissures and cells of the Sphenoid bone, and *Spheno-palatine* relates to the parts connected with the Sphenoid bone and the palate.

**SPHINCTER** (Greek *sphinno*, to constrict). The name given to a muscle whose office is to close the aperture around which it is placed; thus the *Sphincter ani*, which arises from the extremity of the rectum, and is inserted into the point of the *os coccygis* closes the anus; it also draws down the bulb of the urethra.

**SPICA** (Latin for a spike or ear of corn). A name given to a bandage, because its turns are thought to resemble an ear of corn.

**SPICES**. These vegetable products, on account of their stimulant and stomachic properties enter largely into medical treatment; as condiments, if used in moderation, their action is, no doubt, beneficial; but habitually taken, as they often are, in excess, it must be far otherwise. For a more particular account of the different kinds of Spices, see the several heads of *Cinnamon*, *Cloves*, *Ginger*, *Mace*, *Nutmegs*, *Pepper*, &c.

**SPIDER'S WEB**. The cobweb collected from cellars, barns, &c., has been applied from time immemorial to superficial cuts, &c., to arrest the bleeding; it has also been given internally, as a remedy for ague, and as

a sedative in irritable states both of the body and mind; it is said, in some cases, to have a more tranquilizing effect than opium, henbane, or any other narcotic; it has also been given in asthma with marked good results. The dose is from 10 to 20 grains at bedtime, made into a pill; for ague, it should be taken three times a day.

**SPIGELIA MARILANDICA.** The scientific name of the Perennial Worm Grass which is a native of the southern states of North America, and it is one of the most powerful anthelmintics known. In this country we commonly call it Pink Root; it belongs to the natural order *Spigeliaceæ*, so called from Adrian Spigelius of Padua, who first dis-



covered the properties of the plants composing this order. This plant is also a purgative, and to some extent a narcotic; the root, which is the part used, has a faint odour, and a peculiar and unpleasant taste. When given for worms it should be followed by a brisk cathartic; the dose is from 10 to 20 grains for a child: from 1 to 2 drachms for an adult, repeated morning and evening for some days. See *Vermifuges*.

**SPILUS** (Latin for a spot). A congenital spot which appears to consist of a partial thickening of the rete mucosum, being sometimes of a yellowish brown, at others a bluish livid, or nearly black colour. See *Nævus*, &c.

**SPINA BIFIDA** (Latin *bis*, twice, and *findo*, to cleave). Literally, the cloven spine. This is, first, a disease attended with an incomplete state of the vertebræ, and a fluid swelling commonly situated in the lumbar region; second, an imperfect ossification of part of the cranium, which is covered by a tumour similar to the above;

it sometimes occurs on the heads of children.

**SPINACH.** Of this well-known garden vegetable there are two species generally cultivated; one is the Prickly, and the other the Round-leaved Spinach, called by botanists *Spinacia Oleracea* and *S. Galbra*;



they belong to the natural order *Salsolaceæ*, or Saltworts; they may be eaten cooked in various ways, or raw in salads; they are wholesome and agreeable, but contain little nutriment. See *Vegetables*.

**SPINA VENTOSA.** A term first used by Arabian writers, to designate a disease in which matter formed in the interior of a bone, and afterwards escaped beneath the skin. The pain attendant on this disease was termed *Spina* by writers antecedent to the Arabians, who added to it *Ventosa*, from its resemblance to *Emphysema* (which see). In later times the term has been frequently applied to *White Swelling* (which see).

**SPINAL MARROW.** This is the *Medulla spinalis* of anatomists; the Spinal cord, or great channel of nervous sensation, which, issuing from the brain through the occipital foramen, passes down through the hollow above described as far as the second lumbar vertebræ, below which it separates into a number of branches called the *Cauda Equina*, or horse's-tail. See *Nerves*.

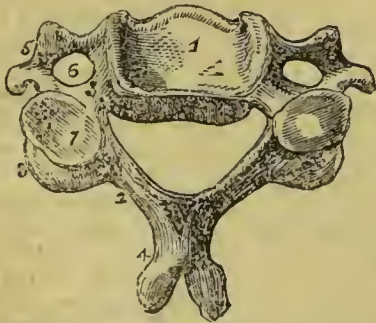
**SPINE.** As the great main channel of nervous sensation, and the principal support to the bony frame, this is one of the most important parts of the human structure; it is sometimes called the vertebral column, being composed of a number of vertebræ, or short single bones, so named from their peculiar construction, the term coming from the Latin *verto*, to turn; these bones turning upon each other in such a manner as to give flexibility to the Spine, which is the



first developed portion of the skeleton in man, and the centre around which all the other parts are produced. "In its earliest formation" says Wilson, "it is a simple cartilaginous cylinder, surrounding and protecting the primitive trace of the nervous system; but as it advances in growth and organization, it becomes divided into distinct pieces, which constitute vertebræ."

These admit of division into true and false: the true vertebræ are 24 in number, and are classed according to the three regions of the trunk which they occupy, into *cervical*, *dorsal*, and *lumbar*, the first having 7; the second 12, and the third 5 pieces. The false vertebræ consist of 9 pieces united into 2 bones, called the *sacrum* and the *coccyx*, the first having 5, and the last 4 pieces."

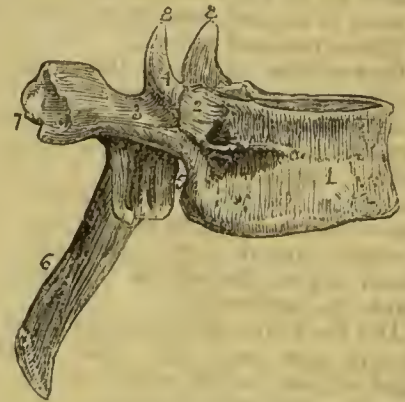
By the aid of the annexed diagram, the peculiarities of construction will be best understood: this represents a central cervical vertebra, seen in the upper surface; 1 is the body, concave in the middle, and rising on each side into a sharp ridge; 2, the lamina, of which there is one on each side, commencing at the posterior part of the body by a pedicle (3), and expanding and arching backward, to meet the other, the two enclosing a foramen or opening, through which the spinal cord passes; 4, is the bifid spinous process, and 5, the bifid transverse



process; these are both intended for the attachment of muscles; it is the succession of the former projecting along the middle line of the back, which has given rise to the common name of the vertebral column—the Spine; 6, marks a vertebral foramen, there is a corresponding one on the other side, through these pass the vertebral artery and vein, and plexus of nerves; 7 and 8, are the superior and inferior articular processes, the first looking upwards and backwards, the last downwards and forwards, of these there are four in each vertebra, they are designed to articulate with the vertebra above and below.

The upper vertebra of the cervical region termed the *atlas*, because it is the immediate support of the head, differs somewhat from this in shape; so also does the second called the *axis*, and the seventh or last termed *prominens*.

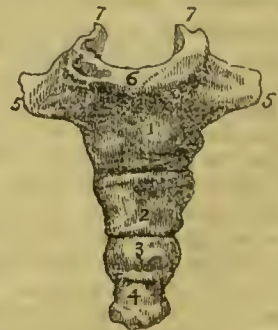
The following is a lateral, or side view of a dorsal vertebra, which will serve to render the foregoing explanation yet clearer:—1



the body; 2 2 articular facets for the heads of the ribs, these are not present; 3 the pedicle; 4 and 5 superior and inferior intervertebral notch; 6 the spinous process, which is thicker and more projecting than in the foregoing example; 7 is the extremity of the transverse process, marked by an articular surface, for the extremity of a rib; 8 and 9 the two superior and two inferior vertebral processes.

In the lumbar vertebræ are the largest pieces of the whole column; here the body is large and broad, and thicker before than behind; the pedicles very strong, and the laminae short, thick, and broad, as is also the spinous process.

The following cut represents the coccyx (Greek *kokkux*, a cuckoo), so-called from



its fancied resemblance to a cuckoo's beak; it forms the caudal termination, or tail of the vertebral column. 1 2 3 and 4 are the four pieces of bone composing it; 5 5 the trans-

ular surface for the extremity of the sacrum, which is the triangular bone composed of five false vertebræ, forming the base of the column; 7 7 being the cornua or horns which articulate with the sacral cornua.

Thus we may understand that the vertebral column as a whole, represents two pyramids, applied base to base, the upper being formed by all the vertebræ from the second cervical to the last lumbar, and the inferior by the sacrum and coccyx.

Viewed from the side, this column presents several curves, the principal of which is situated in the dorsal region, the concavity looking forwards; in the cervical and lumbar regions the column is convex in front; in the pelvic an anterior concave curve is formed by the sacrum and coccyx; a slight lateral curve also exists in the dorsal region, having its convexity to towards the right side.

Did the bodies of the vertebræ rest immediately upon each other, there would be a rigid column which could not be bent in any direction without displacement of the bones; but, to provide against this, they are separated from each other by very elastic "intervertebral cartilages," which yield to every motion of the body, and prevent that shock to the brain which must occur at every step taken, were not some such provision made. Then, again, the vertebræ thus beautifully fitted into each other, and resting upon soft yielding cushions, are braced together by a series of ligaments of different kinds, which, while they allow of all necessary motions, yet restrain it from going too far. By means of these and the muscles, which are mostly attached in a longitudinal direction, and chiefly to the posterior portions of the vertebræ, the equilibrium of the spine, and the motions of the body generally are effected.

Each vertebra having a triangular opening corresponding in position with the rest, there runs through the whole of the column a canal, which is filled with the nerve substance and membranes, composing what is called the *Spinal Cord*, that communicates with the brain through an opening in the base of the skull. (See *Brain, Nerves*.)

*Diseases and Injuries.* Of these the Spine is liable to a great many. There is first congenital malformation, consisting of a deficiency in the front portions of a certain number of the vertebræ, commonly those of the loins; wanting thus their natural bony protection, the membranes which line the interior part of the column are left un-

by which, under the skin, they are surrounded and guarded from injury; the fluid thus effused is confined in a thin transparent kind of bladder, which quickly assumes a livid appearance. The treatment in this case must be left wholly to the surgeon: it is seldom that he can save the child; but cases have occurred in which, by careful evacuation of the fluid from time to time, and other measures, a sufficient degree of success has resulted to afford ground for hope; at all events the trial should be made.

*Concussion of the Spine* is sometimes a consequence of coming too suddenly and heavily on the feet, especially on the heels; it is followed by a want of nervous energy, and a depressed state of the system altogether; there is a loss of sensation and motion in the lower part of the body, and frequently inability to pass the urine, there being, in fact, partial or entire *Paralysis* (which see).

Sometimes there is acute pain in the lower limbs, and symptoms of active inflammation may set in, which will require leeching or cupping, with hot fomentations and the usual depletive measures. In such a case, pending the arrival of the medical man, little can be done beyond placing the patient in as easy a position as possible, and applying moist heat to the lower part of the spine; an active purgative may be administered, and a dozen leeches applied to the back, should it be long before the surgeon arrives, if the patient is of a full habit and in much pain. Should the shock be but slight, the effects will probably soon pass off, but it is necessary to be cautious, and avoid any violent exertion, especially such as jumping, for a time. Often these cases are very tedious, the lost powers are recovered slowly, if at all: friction with stimulating linaments, salt water bathing, the douche bath, gentle exercise, and nourishing diet are the means to be pursued. When there is displacement of the vertebræ, which can only be caused by extreme violence, and in which case there is also generally fracture of the bone, there must be injury of the spinal cord, and if at all high up, instant or speedy death is the sure result; if low down, permanent paralysis of the lower limbs most likely ensues. (For treatment, see *Paralysis*).

*Apoplexy of the Spinal Cord* is not an unfrequent concomitant of *Epilepsy* (which see). With this we have convulsive twittings, pain, and imperfect performance of the functions of motion and sensation: soothing palliative measures are the only



but these should be cautiously given, and not carried to any great extent without professional advice.

*Irritation of the Spine* is especially common in females, and often lies at the root of palpitations, and the hysterical affections to which they are subject. In this case a tender spot, or more than one, may generally be found on examination somewhere in the course of the spinal cord: simple pressure on one of these spots will sometimes suffice to bring on an attack of hysteria and fainting. Debility of constitution is likely to be the cause of this; therefore tonics and invigorating measures are called for. Iron and Quinine should be taken, and general and local bathing resorted to, with friction down the spine, with a course towel, or flesh-brush; in some cases a small blister over the tender part is advisable.

*St. Vitus's Dance, Tetanus, or Locked Jaw*, and some kinds of *Fever*, are to a great extent Spinal affections. (See those heads.)

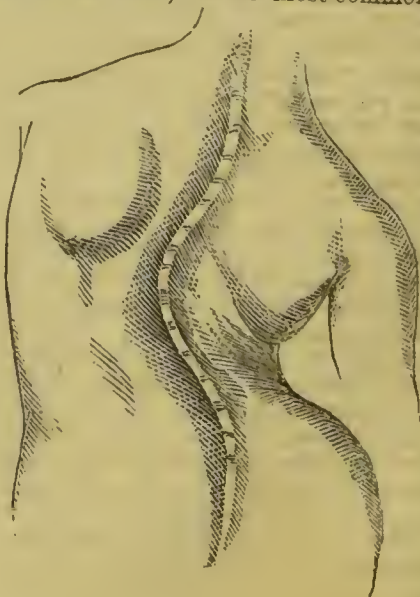
*Distortion of the Spine, or Spinal Curvature*, is by no means uncommon in weakly children, and is more frequently met with in girls than boys, on account of the greater delicacy of structure in the former. Among the most common causes is the pernicious system of artificial restraint to which females are subjected, under the mistaken idea of improving their shape. Scarcely does the vertebral column attain its full growth and firmness until the age of 25, and the muscles which support it, and preserve its equilibrium, are quite sufficient for the intended purpose, if they are allowed to have full development, and free play; but if compressed, and denied the opportunity of exerting their appropriate action, by the substitution of artificial support, they lose their power, and distortion of the frame is often a consequence; for the means of support provided by art can never be so perfect as the natural ones, and sooner or later their failure is made apparent by curvature, which may be one of three kinds, viz.—1st, *Angular* or *Posterior*, sometimes called *Excavation*, the convexity being directed backwards or outwards; 2nd, *Incurvation*, the curvature being inwards and forwards; 3rd, *Lateral*, the curvature being on one side, generally to the right.

In *Angular Curvature* the vertebrae of the neck and back are mostly affected; it may be caused by a habit of stooping, and is not uncommon in near-sighted people, and those who study much; or it may arise from the too common practice of raising children by

the pressure thus exerted upon the ribs, pressing them inwards, while the Spine and breast bone are pushed outwards; by this the Spine is bent forwards so as to form an angle behind, at which angle the vertebrae, becoming displaced, and eventually diseased, yield to the weight of the body, and permit it to fall forward, thereby producing a deformity. In scrofulous children we often see this kind of curvature, arising from ulceration of the body of one or more of the vertebrae; matter is formed, which gravitates downwards, and shows itself, perhaps, in the lumbar regions, or in the groin, or the thigh. Perfect rest in the horizontal position, issues and setons in the neighbourhood of the diseased bone, good nourishing food, and attendance to the general health, is the course to be pursued in this case.

*Incurvation* is not a common form of Spinal deformity; it mostly occurs in the loins, giving a slight increase to the natural curvature, and causing great pressure to the abdomen; when situated at the bottom of the Spine near the pelvis, it prevents a serious obstacle to child-birth; when in the dorsal region, it diminishes the capacity of the chest, and produces a marked deformity of that part. This is, generally, associated with scrofula or rickets, or some deranged state of the general health, and the constitutional treatment must depend greatly on the cause; the local treatment should be similar to that recommended for other forms of the disease.

*Lateral Curvature, or Projection of the Spine on one side*, is the most common of



these deformities, and it is to this chiefly that the foregoing remarks on artificial pressure apply, because this is nearly always a result of mechanical constraint and malposition of the body. The curvature usually becomes noticeable between the ages of ten and eighteen, sometimes much earlier; it may, indeed, commence during the first years of infancy, when the spine is little more than cartilage. The practice of sitting infants upright in the arms when the back is yet too weak to bear the strain of such a position, is a fruitful cause of this deformity, which is sometimes seen in nurse maids who have been accustomed to carry a child always on one arm; and others whose employment has required a peculiar position of the body. School girls, especially those of weekly constitutions, who have to stand much, and sit on forms without backs, are very likely to have distorted spines, which are found to be more common in the higher and middle classes than the lower; those women who have active, out-of-door employment, and have been from childhood loosely clad, are seldom or ever so affected. Lateral Curvature assumes so many different forms, that it would occupy far too much of our space to describe them all, nor is this necessary; whether it be from the right to left, or *vice versa*; whether in the lumbar, dorsal, or cervical region, or extend into two or all of these, it matters not; the predisposing and exciting causes are much the same, and so also is the mode of *treatment* to which we will now direct our attention.

Here we have to grope our way through a conflict of opinions, for this is a subject on which Doctors have disagreed time out of mind. "So many writers, so much said, and yet so little information furnished; each successive author deprecating the means advised by his predecessor, and yet adding nothing to what was already known." Such is the dictum of Dr. Copeland, no mean authority, upon modern *orthopedy*, as the art of curing or remedying deformities in the human body is called. Orthopedic quacks we have in abundance, and many really scientific men have turned their attention to this subject, without, as it would seem, any very satisfactory results; as to the general principles to be applied to the treatment of these deformities. Extension, pressure, and gymnastics are the three means, or systems, usually employed to cure or remedy Spinal deviations; each has its advocates and advantages, and each has its disadvantages, which in many cases are fatal to its successful application; there can be no doubt that *extension*, that is stretching of

the whole spinal column, in order to overcome muscular contraction on one side, and straighten the column, weakens it by separating the vertebræ, lengthening the sinews and ligaments, and so destroying their force; it would seem the better mode to apply an opposing force on the side opposite to that towards which the curvature inclines, to overcome the resistance of the contracted muscles; (for it must be remembered that the muscular fibres, unlike a piece of cord that will remain loose when tension is no longer kept up, contracts and so keeps always tight;) and to overcome also, the force of gravitation acting on a body which, from the deflection of the Spine, has a downward inclination. *Pressure* again, the system which has had the most extensive application, after the one last named, cannot, as we think, be depended on to straighten a crooked Spine, although undoubtedly it has had a beneficial effect in very many cases. The pressure of stays, corsets, and light bands, may keep the body upright during the time of wearing them and so far they are useful: but very rarely is a permanent cure effected by such means; and frequently they do great mischief by compressing the thorax and rendering its cavity too small for the proper action of the important viscera therein, such as the heart, lungs, &c

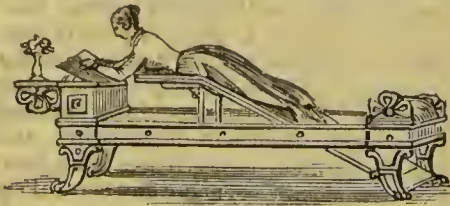
*Gymnastics*, which means exercise in a certain prescribed form, is undoubtedly useful in the case of Spinal deviations, but other means are required also, and the system of rational orthopedy propounded and practised by Dr. Riofrey appears to us the best among the many modes of action recommended. This consists in the application of an opposing force, as before mentioned, by means of straps and bands passing over the shoulder to which the curvature inclines, and downward to the opposite side of the body; it is necessary to success that the force should be applied with the greatest nicety, according to that which it is intended to overcome and that it should be withdrawn as soon as the desired object is attained.

"The compound force of different tractions is the point to be attained," says Dr. Riofrey; "but anatomists alone can succeed with the proper knowledge of organization—the anatomist alone can understand which are the muscles requiring an additional force, and in what manner must be directed the parallelogram of simple forces." Therefore to the surgeon should be confided a case of Spinal deformity, for he only will know exactly how and where to apply the



necessary force, and in what manner and how long to apply it.

Among the mechanical contrivances—and they are many—recommended for this class of deformities, we may mention the Pateut Orthopedic Sofa, invented by Mr. Coles: it is capable of adjustment, so as to form a prone couch, as here represented, on which



the patient can recline in a comfortable position, and read or work, as may be desirable; and also an apparatus for the rowing, swimming, sawing, and stretching exercises, all of which are useful as far as gymnastics will go.

**SPIRITS.** A general term applied to all inflammable liquors, obtained by distillation, as Brandy, Gin, &c. The first Spirit known in Europe was made from grapes, and sold under the name of *Alcohol* (which see). The Genoese afterwards prepared it from grain, and sold it under the name of *Aqua vite*. In most countries, civilised or uncivilised, some kind of intoxicating drink is taken; thus the Mexicans have their *Aqua ardiente*, distilled from *Pulque*, which is the fermented juice of the Agave. In India, the Palm Sugar, called *Jaggery*, and other vegetable products, is converted by the same process, into several kinds of *Arrack*. In the Phillippine Isles, they make *Tabu* from Palm Wine; the Tartars distil their *Araka* from *Kournis*, which is fermented mare's milk; and the Egyptians their *Araki* from the juice of dates. The Siamese have their *Lan* prepared from rice; the Dalmatians their *Rakin* from the husks of grapes, mixed with aromatics. At Dantzic we find *Rossolio*, a compound of Brandy, various kinds of which, distilled from wine, figs, peaches, apples, and other fruits, are drunk all over Europe, North and South America, in parts of Asia, and wherever wine is made. *Troster* is made on the Rhine from the husks of grapes fermented with barley and rye; *Sekis-kayarodka*, in Scio, from the lees of wine and fruit. The Hollander has his *Geneva* or *Hollands*, distilled from malted barley and rye, and flavoured with juniper berries, and varieties of this Spirit are with us far too well known under the name of *Gin*, *Glenlivat*, *Whiskey*, *Mountain Dew*, *Poteen*, *Innishowen*, and other popular de-

signations. At Dantzic, also, from wheat, barley, rye, with aniseed, cinnamon, and other spices, they make *Goldwasser*. In Switzerland, from the Malachet cherry juice, *Kirchwasser* is prepared; and in Dalmatia, from the Moruska cherry, *Maraschino*. In the West Indies and South America, the juice of the sugar cane is distilled into *Rum*, of which at Kamtschatka, they have a variety made from sweet grass, and called *Statkaiatrava*. From the lees of *Mandarin*, a wine made of boiled rice, the Chinese distil *Chow-chow*; and the Sandwich Islanders, from the Tea-root, baked, powdered, and fermented, prepare *Y-uer-a*; while the Affghans, from ewes' milk, make an intoxicating liquor; and, going again to Kamtschatka, we find, under the name of *Muchumer*, another kind of spirit. Many more might be named, for men have in all ages been ingenious in providing the means of sensual indulgence. (See *Alcohol*, *Distillation*, *Beverages*, *Drinks*, *Liquors*).

The chief Spirits used medicinally are the following:—

Compound Spirits of Ether and Spirits of Nitric Ether (which see), Aromatic Fœtid and Simple Spirits of *Ammonia* (which see), Spirits of *Allspice*, *Aniseed*, *Camphor*, *Carraway*, *Cassia*, *Cinnamon*, *Horse-radish*, *Juniper*, *Lavender*, *Nutmeg*, *Pennyroyal*, *Peppermint*, *Rosemary*, *Spear-mint*: for properties and doses of which see several heads of chief ingredients.

*Rectified Spirit* is mostly distilled from malt; it should have a specific gravity of about 840. Proof Spirit is one-third weaker, having a specific gravity of about 920: this strength is commonly used for making *Tinctures* (which see), although for some the stronger sort is required. Brandy is called in the Pharmacopœia *Spiritus Vini Gallici*—Spirit of French Wine; it is among the most valuable of medicinal agents. (See *Brandy*, also *Stimulants*).

*Spirit Lotions*, on account of their rapid evaporation, are often applied to inflamed surfaces to keep them cool; in sprains and other injuries they are most valuable. The following is a good form of preparation:—Take of Rectified Spirit of Wine 2 ounces; or Brandy, strong Whiskey, or Geneva, a quarter of a pint; rain water, or that which has been previously boiled, a pint; rags wet with the lotion to be kept constantly on.

*Spirits* is also a term synonymous with nervous power or energy, a low or high condition of which is indicated by a corresponding elevation or depression of the Spirits;

sequently, but not always, does this correspond with the bodily strength and health. Low Spirits not unfrequently become, as it were, chronic, passing into confirmed *Hypochondriasis* (which see, also *Nervousness*.) The remedies are tonic and stimulating medicines, change of air and scene, bathing and exercise; indeed, anything which tends to divert the mind, and restore strength and activity to the body.

**SPITTING OF BLOOD.** See *Hæmoptysis*.

**SPLANCHNON** (Greek for a viscus). Hence we have the terms *Splanchnology*, a description of the viscera; *Splanchnic Nerves*, of which there are two pairs, distinguished as the great and small, the former passing behind the stomach and terminating in the semi-lunar ganglion, and the latter communicating with the former, and terminating in the renal *Ganglion* (which see).

**SPLEEN.** This organ is, in the lower animals, called the *Melt*. It is a spongy viscus situated in the left hypochondriac region, between the eleventh and twelfth false ribs; it is of an oval figure. The ancients considered the Spleen to be the seat of all ill-humours, such as melancholy, anger, or vexation; hence the term *Splenetic*, applied to those who are cross and crabbed. From the same root we have also *Splenalgia*, pain in the Spleen; *Splenitis*, inflammation of the Spleen, which may be either acute or chronic; *Splenius*, a muscle resembling the Spleen; it brings the head and neck backwards laterally, or directly backwards. *Splenization* is a change induced in the lungs by inflammation, making them resemble the substance of the Spleen. This state differs from hepatization in the absence of granules, and is consequently darker and more uniform in texture. In this state it very much resembles that condition of the lungs produced in *Pneumonia* (which see), and which Lacunec calls *Car-nification*.

**SPLINT BONE.** The small bone of the leg is popularly so called; surgeons term it the *Fibula* (which see).

**SPLINTS** are long thin pieces of wood, tin, gutta percha, or other suitable substances used to keep the ends of fractured bones in their places, so that they may unite; and for supporting injured parts generally; they are made of various shapes and sizes, and should form part of the stock of surgical instruments and apparatus which accompanies the family medicine chest, especially if intended for the use of emigrants. In our article on *Fractures* will be found full directions for the application of Splints.

**SPLIT CLOTH.** This is the technical name

for a kind of head bandage, consisting of a central piece with six or eight tails; the one called the four-tailed, or single split cloth is the most convenient for the forehead, face or jaws. See *Bandages*.

**SPODIUM** (Greek *spodos*, a cinder). A name sometimes given to the oxide of zinc, which sublimes during calcination. See *Zinc*.

**SPONGE.** This well-known porous substance, once thought to be a vegetable product, but now proved beyond doubt to belong to the animal kingdom, being the covering or habitation of a marine zoophite; besides its utility as an absorbent of moisture, and cleanser in surgical cases, it has long been given as a remedy in bronchocele, scrofulous diseases, enlargement of the prostate gland, &c.: the form of administration is that of Burnt Sponge (*Spongia Usti*); its efficacy appears to depend upon a certain proportion of iodine which it contains; the dose is large, being from 1 to 3 drachms; it may be made into an electuary with honey or treacle.

*Prepared Sponge* used as pledgets and tents for keeping open the apertures of discharging wounds, is made by dipping the Sponge in melted wax plaister, and then pressing it between hot iron plates. When cold it may be cut into any required shape.

**SPONGRO PILINE** is a useful invention of recent date; it is intended as a substitute for the poultice, and is formed of Sponge cut up into fragments and felted into a mass with cotton wool; a layer of this mingled material is backed with waterproof varnish, which prevents the evaporation of the liquid absorbed by the soft material, which, when applied to an inflamed surface, keeps moist for a long time; it is a very cleanly and convenient application. See *Poultices*.

**SPORADIC.** (Greek *speiro*, to sow). A general term for diseases arising from occasional causes, such as cold, fatigue, &c., showing themselves in individual cases, and not attacking numbers at once like *Epidemics* (which see).

**SPRAIN or STRAIN.** This is the effect of over-stretching or tearing the ligaments of a joint; it is an accident very likely to occur, especially in the wrist and ankle bones, and is productive of extreme pain, sometimes causing faintness and vomiting. There is, generally, effusion of blood beneath the enlargements, hence the discoloration of them, observable in these cases; commonly, also, there is rapid swelling, which renders it difficult to ascertain whether a dislocation or fracture has not taken place, therefore, if



consulted. Not only are Sprains excessively painful at the time of their occurrence, but they are likely to lead to permanent injury, especially if neglected, and in this case they are more difficult to cure than either dislocations or fractures. Dr. South says—"It would be better to break a limb than sprain a joint, the former in 99 cases out of a 100, being cured in the course of a few weeks, if the skin has not been broken, whilst the effects of the latter may, at best, remain for weeks or months, as weakness or stiffness of the joint."

In the treatment of Sprains, perfect rest of the injured part is essential. We do not mean to say that they are never cured without this, but never so speedily and completely; and, without it, there is always great danger of bad after-consequences; therefore, the patient, as soon as it has been ascertained that there is nothing more than a Sprain, should take to his couch or sofa, and remain perfectly quiescent, especially if the injury is in the ankle or knee, or any part of the leg, in which case the limb should be kept in a horizontal position with warm moist flannels applied to the joint by day, and a warm bread-and-water poultice at night; should this not reduce the swelling and subdue the pain, in the course of 24 hours, leeches may be applied and repeated two or three times if required. When the tenderness has, in a measure, subsided, a piece of lint dipped in vinegar, or diluted acetic acid, may be laid over the part; this will, probably, bring out a pustular eruption of the skin, and divert the low inflammation from the ligaments, at a time when stimulating friction could not be borne. When the pain has entirely ceased, and the joint has resumed its usual appearance, great caution is necessary in using it, as irreparable mischief often results from doing so too much or too early. If it continues swollen, it should be bound up with straps of soap plaister, or a roller. (See *Bandages*). But before binding, plenty of friction with Soap Liniment and Turpentine should be tried, and a stream of Cold Water poured from a considerable height, as directed under the head *Douche Bath*.

If the injury is in the elbow or wrist joint, the arm should be sustained in a sling, and never suffered to hang down. Persons of full habit will require active purgatives, especially if the inflammation runs high; and if the pain is very severe, so as to prevent sleep, an opiate may be taken at bed time, 10 grains of Dover's Powder is, perhaps, the best, or 5 grains of

be taken.  
**SPRUCE BEER.** A liquor made of the Essence of Spruce and Treacle; it is well boiled, and then fermented. The *Essence of Spruce* is made by boiling the young branches of the Norway Spruce, *Abies Excelsa*, and evaporating the decoction to the consistence of treacle.

**SPUTUM** (Latin *spuo*, to spit). Any kind of *Expectoration* (which see), also *Nummular* and *Mucus*.

**SQUAMA** (Latin for a scale). Hence come the terms of *Squamæ Ferri*, Scales of Iron, being the black oxide which is obtained in the form of scales: *Squamous*, the name of a suture of the cranium, so called from its edges covering like scales; this is also the name of the scaly portion of the temporal bone.

**SQUILL**, in Latin *Scilla*. This is a plant of the natural order *Siliaceæ*, which grows on the sea shore of nearly all countries bordering on the Mediterranean. It is sometimes called the Sea Onion, having bulbous



roots which contain a viscid acrid juice, so volatile that the vapour arising from it, when a bulb is cut in pieces, irritates the nose and eyes; the juice blisters the fingers, if suffered to remain on. The roots, sliced and dried, form transparent slips, which have a bitter taste. In small doses, the

Squill is expectorant, diaphoretic, and diuretic; in large, emetic and purgative; in very large doses, the acrid principle which it contains is likely to render it poisonous. As a diuretic, the Squill is generally given in dropsies; as an expectorant, in chronic bronchitis; it is usually combined with other medicines, as ipecacuanha, paregoric, &c. Its chief official preparations are the Compound Squill Pill, dose from 5 to 15 grains; Vinegar and Oxymer of Squills, dose from  $\frac{1}{2}$  to 1 drachm; Tincture of Squills, dose from 10 to 30 minims. The dose of the Powder, as an expectorant, is about 1 grain.

**SQUINTING.** This affection was formerly called *goggle-eye*, hence the term *goggles* is sometimes applied to the peculiar kind of glasses, used to cure the complaint; the French term these glasses *masques à louchette*, or squinting guards. Squinting is an affection in which the optic axes of the eye are not directed to the same object; it may sometimes be cured by wearing the above mentioned glasses for a time, but seldom otherwise than by an operation, which is generally effectual if properly performed—which it can only be by a surgeon. The scientific name of this affection is *Strabismus* (which see).

**STACTE** (Greek *staeto*, to distil). The kind of myrrh which distils, or falls in drops from the trees, is so called; as is also a more liquid amber than is generally met with in commerce. From the same root we have *Stagma*, a distilled liquor, a name by which Vitriolic or Sulphuric Acid was sometimes formerly called.

**STAFF.** The instrument used to direct the gorget or knife with which lithotomy is performed.

**STANNUM.** See *Tin*, of which the Protochloride is called *Stannate*.

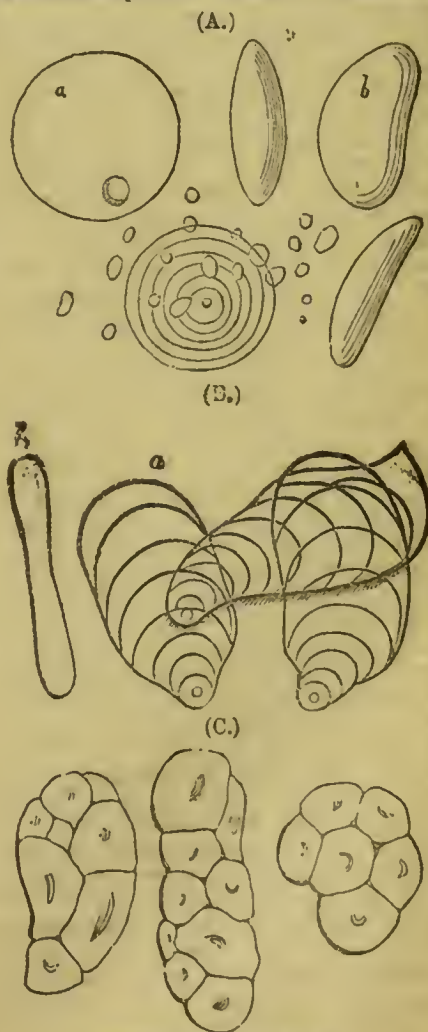
**STAPES** (Latin for a stirrup). A name given, on account of its shape, to one of the small bones of the internal *Ear* (which see). A small muscle attached near the mastoid cells, and inserted into the head of this bone, is called *Stapedius*.

**STAPHYLOMA** (Greek *staphyle*, a grape). An eye disease consisting of an increase in the size of the cornea, and almost invariably accompanied by opacity more or less dense. There are several species of this which we need not describe, as only an oculist could enter into their nice distinctions. See *Eye*.

**STARCH.** In the vegetable kingdom this is a very widely diffused body. In almost every growing cell granules of Starch may be distinguished by means of the micro-

scope. These granules are of various sizes, and assume a great variety of forms; some are round, others are flat, whilst others are even stellate. These granules are always found mixed with other substances, but they are easily made distinguishable by the application of a little iodine, which is one of the best tests for Starch, and which, coming in contact with it, produces a beautiful blue colour.

Starch is found in some plants in greater quantities than in others; it is however, very generally found in perennial roots and rootstocks, in the stems and in the seeds of plants. It seems stored up in these parts for the future growth of the developing organs of the plant. There are few or no



GRANULES OF STARCH.

(A.)—From wheat and barley. (B.)—From arrow-root. (C.)—From Portland sago.



that do not contain Starch. We find it in turnips, carrots, potatoes, cabbages, parsnips, beans, peas, wheat, barley, oats, and the rest of the Cerealia; in chesnuts, walnuts, hazelnuts, and all other seeds; in the apple, the pear, the plum, the cherry, and all other fruits. In many of these things, however, it is not the distinguishing alimentary ingredient, but it is often separated and used pure as an article of diet. The substances in which it exists in a tolerably pure form, are *Arrow-root*, *Sago*, and *Tapioca* (which see).

We cannot too strongly impress upon our readers that it is not of itself a nutritious form of food. Sago, Tapioca, and Arrowroot, should, on this account, never form the entire or principal part of the diet of young or old; and there are many vegetables which contain so large a quantity of Starch that they should only be eaten with food containing more nutritive matter: among these may be named the *Parsnip*, *Carrot*, *Turnip*, *Cabbage*, *Asparagus*, *Sea Kale*, *Spinach*, and *Vegetable Marrow*. (See those several heads, and *Vegetables*.)

The Latin name of Starch is *Amylum*; it has demulcent properties which render it useful in irritated states of the bowels, and rectum;  $\frac{1}{2}$  an ounce dissolved in a pint of water being the proper proportion for an enema, which is used either alone or as a vehicle for other remedies. In the form of powder, Starch is dusted on the skin to absorb irritated secretions, and allay inflammation; it is this which is so largely employed in the nursery under the name of Infants' Powder. Starch enters into the Compound Tragacanth Powder of the Pharmacopœia, and is a perfect antidote to poisoning by *Iodine*.

**STAVESACRE.** A plant of the Crowfoot family, botanically known as *Delphinium Staphisagria*, whose seeds are violently emetic and cathartic; they are never given internally, but are employed as an application to some cutaneous eruptions, and to destroy lice in the head, being in the latter case mixed with hair powder. The active properties of the seeds appear to reside in an alkaloid which has been extracted and called *Delphine* (which see).

**STATICE CAROLINIANA.** The scientific name of the Marsh Rosemary; of the natural order *Plumbaginaceæ*, or Leadworts; the root is bitter and very astringent, and is given in dysentary and diarrhoea, like catechu or kino; but it is most used to make a gargle for aphthous and malignant sore throat. (Se cut top of next column).



**STAYS.** There can be little doubt that the preponderance of chest diseases of females over those of men in this country, as shown by the returns of the Registrar-General, is owing in a great measure to the unnatural compression of the organs by tight lacing. Andrew Combe, in his "Physiology applied to the Preservation of Health," says:—"The pressure of stays impedes the flow of blood to the muscles, which, being therefore imperfectly nourished, waste away; they lose their healthy colour, and become pale and flabby, and their contractive power diminishes. Hence, in order to produce injurious consequences, a degree of pressure is sufficient far below what is requisite to cause distortion of the chest, and compression of the respiratory and digestive organs. Stays and corsets in many instances, give rise to consumptions; and I have seen one case in which the liver was deeply indented by the pressure, and long-continued ill-health and ultimate death was the consequence."

Every medical practitioner could cite numerous instances in support of this testimony against an absurd and injurious practice. Dr. Ryan, writing "On the Diseases of Women and Children," says:—"Stays are injurious; they prevent the growth of the chest, impede the breathing and action of the heart; cause palpitation, and render the compressed parts a load on the lower part of the spine, which bends on one side. Want of proper exercise and tight lacing are the causes of spinal curvature in girls; and hence we can scarcely see a young lady with a straight back."

Again, Dr. Gregory, in his "Comparative

View of the State and Faculties of Man with those of the Animal World," tells us that "the common effect of this practice (tight-lacing) is obstruction of the lungs, from their not having sufficient room to play, which, besides tainting the breath, cuts off numbers of young women in the very bloom of life. But nature has shown her resentment of this practice in a very striking manner, by rendering half the women of fashion deformed in some degree or other. Deformity is peculiar to the civilized part of mankind, and is almost always the work of our own hands."

To such testimony as this we need add but few remarks of our own. We know that there are cases in which some support for the chest is absolutely necessary, but this may be obtained by means of an elastic corset, which shall afford the required degree of support, without undue compression, and especially without that clasp-in of the waste which is considered essential to gentility. (See *Dress, Tight-lacing*.)

**STEARINE** (Greek *steao*, suet). A solid crystallizable substance, one of the proximate principles of *Fat* (which see), and *Elain*. An acid procured from soap made from potash and suet or hog's lard, is called *Stearic Acid*; and one procured by distillation from Castor Oil is *Stearo-Ricinic Acid*.

**STEATOMA** or **STEATOCELE**. This is the name given to a wen, or encysted tumour, commonly seated in the scrotum, containing a fat-like matter. See *Wen*.

**STEER'S OPODELDOC**. A nostrum once in high repute for the cure of rheumatic and other affections of the like nature: it differed but little, if at all, from the common *Opo-deldoc* (which see).

**STELLA**. A roller bandage applied in the form of a figure 8, so as to keep back the shoulders, and so named from its forming a cross or star on the back; it is sometimes called a *Stellated Bandage*.

**STERILITY** (Latin *sterilis*, barren). Impotence in the male; inability to conceive in the female. See *Barrenness*.

**STERNUM**. This bone is situated in the middle line of the front of the chest; it is oblique in direction, the upper end lying within a few inches of the vertebral column, the lower being projected forwards, so as to be placed at a considerable distance from the spine. The bone is flat, or slightly concave in front, and is marked by five transverse lines, which indicate its original subdivision into six pieces. It is convex behind, broad and thick above, flattened and pointed below, and divisible in the adult into three

pieces, which are called the *upper piece*, or *body*; and the inferior piece, which is the smallest of the three, and is often merely cartilaginous; it is called the *Ensiform* or *Xyphoid cartilage*. (For diagrams in which the Sternum is represented, see *Ribs*.) Several muscles take their names from a connection with this bone:—for instance, the *Sterno-clavicular*, a ligament extending from the Sternum to the clavicle.

**STERNUTATORIES** (Latin *sternuto*, to sneeze). These are substances which, when applied to the pituitary membrane, cause a discharge from the nostrils, either of a mucous or a serous fluid, and generally, also *Sneezing* (which see).

**STERTOR** (Latin *sterto*, to snore). Stertorious breathing, or snoring, as it is commonly called, occurs in apoplexy and states of coma; with heavy sleepers it is common enough, and need not cause any alarm.

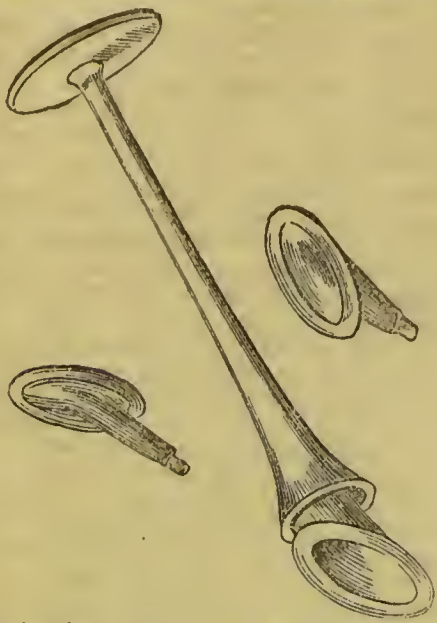
**STETHOSCOPE** (Greek *stethos*, the breast, and *okopeco* to examine). This instrument which has now become indispensable to a proper examination by *Auscultation* (which see), of the organs of the chest, is simply a conductor of sound, being a cylinder of fine grained light wood, or gutta percha, perforated longitudinally in the middle; with one extremity funnel shaped, which is applied to the chest, and the other flat and orbicular with a hole in the centre, to which the ear is applied; when the Stethoscope is of wood, the ear disc is generally of bone or ivory, but when of gutta percha, it is of the same material, the whole being moulded in one piece.

*Phonoscope* or sound conductor would be a better name for this instrument, as expressing more clearly its object and meaning. An improvement in its construction or rather a useful addition to its advantages has recently been made.

It consists of a moveable extremity, or body piece, made of gutta percha or vulcanized india rubber, and is constructed so as to fit into the tube of any Stethoscope ordinarily used. In this case the axis of the tube is placed at an acute angle from the edge, which is applied to the patient's body. By this arrangement the Stethoscope thus provided being placed on the chest, the flat extremity, or ear piece, can be directed most conveniently to the ear of the auscultator. The advantage of such an arrangement is evident. For example, the auscultator, standing on the left side of the patient's bed, has to examine the right side of the chest, the difficulty of stretching across the patient, in such a case, is perfectly familiar to most



venience is altogether avoided. It will be found most convenient, too, in examining the back, or axilla, when the patient is un-



able to rise; or in the case of a female whose stays it may be inconvenient too remove, or in small pox, where it may be desirable to avoid too close proximity to the patient.

**STEWING.** This slow process of boiling meat renders it easy of digestion, and, therefore, best fitted for invalids; by it, moreover, the juice, or gravy, which is the more nutritive part, is retained, either in the meat itself, or in the liquor, which is taken with or without it. See *Broth*.

**STHENIC** (Greek *sthenos*, strength). A term applied by some nosologists to cases which, according to their theory, are the result of exhausted excitability, and are marked by indirect debility. See *Asthenia*.

**STIBIUM.** (The Latin term for *Antimony*). Hence Berzelius described the Antimonious and Antimonic acids under the name of *stibious* and *stibic*. See *Antimony* and *Stimmi*.

**STICKING PLAISTER**, commonly called *Adhesive* or *Diachylon Plaister*, is the universal remedy for cuts, and no better application can be made; it is extremely useful, also, in dressing wounds, &c., to bind injured parts together, or the applications which are thought best for keeping them in their places. See *Plasters*.

**STIFF JOINT.** See *Anchylosis*.

**STIGMA** (Greek *stizo*, to prick). A small red speck, the eruption of skin diseases;

see, also *Skin Diseases*).

**STILL BORN.** It does not always follow that because an infant is born apparently dead, there is not, therefore, hopes of its ever living; efforts should be made to inflate the lungs just the same as if it were a case of suspended animation; directions how to proceed in this case will be found under the head *Infancy* (see p. 36, Vol. II).

**STILLICIDIUM** (Latin *stillo*, to ooze in drops, *cado*, to fall). The act of pumping upon any part was sometimes so called; as was also the discharge of the urine by drops. See *Strangury*.

**STIMMI** (Greek). A substance, probably antimouy, which the ancients used to apply to the eyelids for the purpose of contracting them, and thus giving an unnatural appearance of largeness, which was considered a mark of beauty. See *Stibium*.

**STIMULANTS** (Latin *stimulo*, to prick). Medicines which quicken or augment the functions of the bodily organs. They may be divided into two classes—1st, those which produce a general stimulant effect upon the system, *Anti-Spasmodics*, *Astringents*, *Narcotics*, and *Tonics* (all of which see); 2nd, those which produce an effect upon particular parts of the system: these have often been called *evacuants*, because they occasion a greater secretion of the organs on which they act; these will be found under the several heads of *Emetics*, *Emmenagogues*, *Epispastics*, *Errhines*, *Cathartics*, *Diaphoretics*, *Diuretics*, *Scialogogues*.

Of the use and abuse of alcoholic Stimulants we have already spoken under the heads of *Alcohol*, *Ale and Beer*, *Beverages*, &c.

Of the benefit of Stimulants in certain cases and stages of disease, and therefore the propriety of their administration, there can be no question, although some have expressed doubts upon the subject. Those only who have had to deal with cases of low typhoid fevers, and utter prostration and exhaustion of nervous power, can rightly estimate their value.

**STINGS.** Various insects, such as the bee, wasp, hornet, &c., have the power of puncturing the skin, and injecting a poison into the wound; and this, which is called a Sting, is frequently very painful, and even dangerous, producing an inflamed state of the cuticle and subjacent tissue, which often spreads and affects the whole system. The person stung first feels an acute pain, like that caused by a prick; then there is generally a tingling sensation, followed by great heat and redness, and often by swelling of the part. Olive Oil is frequently applied in

such a case, and afford considerable relief; but an alkaline preparation is certainly the best—a solution of the Carbonates of Ammonia, Potash, or Soda, or a little Spirits of Hartshorn somewhat weakened with water. The wound should be first examined to see if the Sting is left in; if it is, a fine hair-like line will be seen, which should be extracted by means of small tweezers. If the swelling and pain remain after the above application, fags wet with Goulard Water should be applied, or tepid poultices. See *Inflammation*.

**STITCH.** A spasmodic action of the muscles of the side, accompanied with pain; it is produced by running, and may generally be relieved by rest and friction.

**STOMACH** (Greek *stoma*, the mouth, *xeo*, to pour). This is a membranous bag, situated immediately under the diaphragm, in the human body; it varies much in size, according to the amount of distension it undergoes. When not unnaturally distended, but containing an ordinary meal, it is about ten or twelve inches in length, and from four to four and a-half inches in diameter at its widest part. It has two orifices, the one leading from the œsophagus, the other into the duodenum. The former is called the *cardiac orifice*, the latter the *pylorus*. This word comes from two Greek words, signifying a gate-keeper, and is applied to this part of the stomach on account of its function of contraction, by which it is partly closed, and the food is prevented from passing into the duodenum, except at proper intervals. This contraction is effected by a circle of muscular fibres, arranged round the lower orifice of the stomach.

The stomach itself consists of four coats or membranes, which are held together by means of the cellular tissue that we find every where entering into the composition of the parts of the body. The external of these coats consist of what is called serous membrane, and is a part of a great bag of serous membrane, the *peritoneum*, which covers the whole of the abdominal viscera, and which are thrust, as it were, into this bag from the outside, the inner sides of the bag being kept constantly moist, so as to lubricate the external part of the stomach and other organs, and thus prevent any friction from the movements of the body. The part of this membrane which covers the stomach is thin, smooth, transparent, and elastic, and immediately covers the second or muscular coat. This coat is composed of muscular fibres, which are distributed in three different directions. There is a set of fibres passing from the œsophagus

directly along the stomach. Under these is another set, which pass round the stomach in a circular manner; and under these are others, passing in an oblique direction between the two others.

These fibres, like all other parts of the muscular system, possess a power of contracting; and when the food is in the stomach, it is by means of these muscles that the food is moved round and round, and ultimately propelled to the pyloric extremity of the stomach, previous to passing into the duodenum. The direction of the fibres indicate at once the functions they have to perform; under the muscular coat is a quantity of cellular tissue, called the nervous, submucous, vascular or cellular coat. It is upon this coat that the mucous membrane of the stomach rests, and in which the blood-vessels are distributed, before they pass to supply mucous coat. All these membranes are found to a greater or less extent in the whole of the alimentary canal.

The most important of the coats of the stomach is the internal, or mucous. It is constructed in the same way as the whole of the mucous membranes, which every where form the interior of the passages leading into or from the internal organs. This membrane consists of two parts: of an under layer, called *corium*, which rests always on the submucous cellular tissue, and is composed of a layer of fibres and vessels, varying much in thickness in different parts, which is covered over with a very thin lamella, called *basement membrane*. On this membrane are formed the cells which are called *epithelium*. These cells vary much in size, shape, and number, according to the part of the mucous membrane on which they are found. The external surface of all mucous membranes is kept moist with a secretion called *mucus*. It is this substance which collects in the mucous membranes of the nose, and the necessary removal of which, when it accumulates, has led to the use of the pocket-handkerchief amongst civilized nations. The same secretion frequently collects in the pharynx and windpipe, and is removed by the process of expectoration. In diseases of the mucous membranes, this secretion may be either entirely arrested, or increased to an unnatural extent. In inflammation of these membranes, the secretion in the first stages is often entirely suppressed, and subsequently greatly increased. This is not unfrequently the case in common cold. The secretion also changes its character in different diseases, and at different stages of the same disease. Thus, in a common



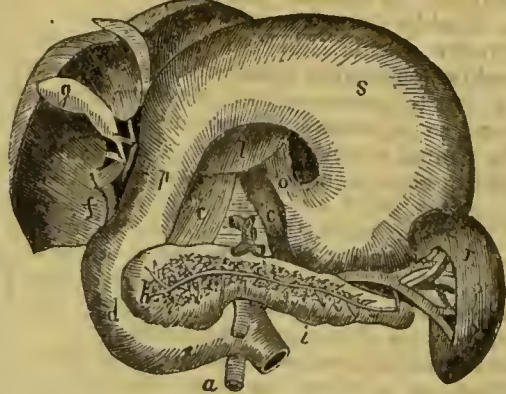
membrane of the nose, it is at first thin and watery, but subsequently becomes thick and tenacious. This mucus is composed of water, holding various substances, such as common salt, (chloride of sodium,) and other salts of potash and soda in solution. Diffused through it are cells and corpuscles, which have been thrown off from the basement membrane.

In addition to these general characters, the mucous membranes frequently present depressions and elevations of various kinds. The depressions, according to their nature, are called follicles or glands, whilst the elevations are called papillæ and villi. The depressions or follicles are types of the whole of the glands of the body, which seem to be but continuations of the mucous membrane, however various the products of their secretory powers.

The mucous membrane of the stomach has certain peculiarities. It is generally of a palish pink hue, arising from the blood-vessels beneath it. This colour is more intense during the process of digestion, as at that time the quantity of blood sent to the stomach is greater than at any other. This is in accordance with a very general law of the economy, that wherever an organ is actively exercising its functions, the greatest quantity of blood will be sent to it.

The mucous membrane of the stomach is only loosely attached to the muscular membrane below it; so that whenever the latter contracts, the mucous membrane is thrown into folds. These are called *rugæ*, and are very characteristic of the stomach when it is empty. They, however, disappear, and the inside of the stomach is quite smooth, when it is distended. The mucous membrane of the stomach is studded with the depressions and elevations to which we have alluded. It seems to be more especially the function of the depressions to secrete special products; and the depressed portions of the mucous membrane in the stomach—forming little tubes which are aggregated together in masses—seem to secrete the gastric acid of the stomach, through whose agency digestion is carried on.

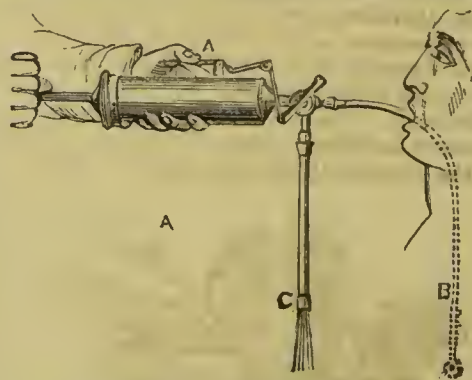
[The above cut represents the various parts and organs situated in the region of the stomach—*l* the under-surface of the liver; *g* the gall-bladder; *f* the common bile duct; *o* the cardiac end of the stomach; *s* under-surface of the stomach; *p* pylorus; *d* duodenum; *h i* the pancreas, cut across to exhibit the structure of the pancreatic duct, and its branches; *r* the spleen; *e* portion of the diaphragm; *a* aorta.]



For further particulars of the Stomach and its diseases see *Abdomen, Alimentary Canal, Bile, Bowels, Digestion, Dyspepsia, Diarrhæa, Dysentery, Intestines, Worms, &c.*

**STOMACACE** (Greek *stoma* the mouth, *kakos* bad). Literally mouth disease, or *Canker* (which see).

**STOMACH PUMP.** This instrument is made on the principle of that employed for enemas; indeed, the latter may be adapted to the purpose of the former, by the mere addition of a long flexible tube or pipe, to go down the throat. We give a cut of one of



these instruments, exhibiting the latest improvements of construction: A, is the barrel, B, the pipe which is passed into the stomach, and C, that through which the liquid drawn from thence is discharged. In all cases of poisoning, the pump should be resorted to, if it is available, but as it requires some skill in the application, only a surgeon should attempt this; until his arrival, it is best to use Mustard, or Sulphate of Zinc emetics. (See *Poisons*.)

The above represents Maw's Improved Stomach Pump without valves, the stop cock worked by means of a flute key lever; it may be also fitted with tubes, and rendered available as an Enema and Ear Syringe.

STONE. A common name for calculus in the Bladder (which see), and Gravel.

STONE FRUIT. These are, generally speaking, somewhat indigestible when eaten raw, but to persons of good digestive powers are not so injurious as is commonly supposed. The annual attacks of bowel complaint, or English cholera, are commonly attributed to the plums which are plentiful at the season of the year when these come in; but in reality the fruit has very little to with them. The continuance of summer heat causes an accumulation of bile, and this, reaching its climax in the autumnal months, produces diarrhoea as a natural consequence. When, as is often the case, the fruit is eaten immoderately or in a bad condition, disorder of the bowels is likely to ensue, whether it be Stone Fruit or not. Still, we know that cherries and plums are not so wholesome as grapes and currants, and therefore weakly persons should partake of them only sparingly, if at all, and rather in a cooked than a raw state. See *Fruit*.

STONE POCK. This is a name applied to hard pimples. See *Skin Disease*, *Varus*.

STOOLS. One of the first inquiries of the medical man when called to a patient is respecting the character and frequency of the Stools, or evacuations of the bowels: these, therefore, should always be kept for his inspection, as by them he is enabled to form a pretty clear notion of the mode of treatment to be pursued. See *Fæces*.

STORAX. This is a kind of balsam, or concrete medicinal gum; it is the produce of the *Styrax Officinalis*, a small tree be-

resembles that of the balsam of Tolu; but it is far less frequently employed than those, although useful in chronic coughs and pulmonary affections.

The *Prepared Storax* is a spirituous extract of the gum; the dose is from 10 to 20 grains. There is a *Pil Styraeis*, which contains one part in four of opium, and therefore should be cautiously administered.

STRAMONIUM, OR THORN APPLE. This is the *Datura Stramonium* of botanists, belonging to the natural order *Solanaceæ*; it is an acrid narcotic poison, and appears to exercise much the same influence on the human system as belladonna. It is sometimes given for the purpose of quieting the mind during violent paroxysms of insanity.



The claim which was some years since set up for it as a specific in severe chronic pains of the head and other parts of the body, may be well disputed, and its dangerous nature should prohibit its internal administration in any cases to which other remedies can be applied. When given, it should be in the form of Tincture or Extract, dose of the former from 10 to 20 minims twice a-day, in water; of the latter, from  $\frac{1}{4}$  to  $\frac{1}{2}$  a grain, which may be gradually increased to 4 grains in 24 hours.

Smoking the herb after the manner of tobacco, sometimes affords relief in spasmodic asthma; this has become a common practice of late, and with some persons it has proved very mischievous; it may be safely followed, although not to excess, by those with whom it produces no sensation of giddiness, or other bad head symptoms. The poorer Turks smoke this instead of opium, and the Ceylonese, when asthmatic, have done so time out of mind.



longing to the natural order *Styracææ*. Being an aromatic expectorant, its action



sudden wrenching or turning of a joint, commonly called a *Sprain* or *Strain* (which see).

STRIA (Latin for a *streak* or *groove*). Hence the term *corpora striata*, two streaky eminences in the lateral ventricle of the brain.

STRICTURE (Latin *stringo*, to bind). A contracted state of some part of a tube or duct. It also denotes in strangulated hernia the narrowest part of the aperture through which the viscera protrudes. The parts in which Stricture most commonly occurs are 1st, the Oesophagus, which is rare, and quite beyond the reach of domestic treatment; 2nd, the Rectum, this being a mechanical closing of the bowel, caused either by chronic inflammation or malignant disease; in this the forces are passed with much difficulty, being sometimes no larger than a tobacco pipe in diameter; here, again, domestic treatment is of little or no avail; 3rd, the Urethra, the passage of which must be gradually enlarged by the introduction of a succession of instruments called *Bougies* and *Catheters* (which see). This kind of Stricture is, generally, the result of excesses in early life; it sometimes amounts to complete stoppage of the urine, and causes very great suffering; when immediate relief cannot be obtained by the use of the above named instruments, a partial measure of it may, by warm moist application to the parts, or a resort to the hip-bath. See *Bladder*, *Strangury*.

STRIDOR DENTII, Grinding or Gnashing of the Teeth; sometimes called *Brygmus*. This is symptomatic chiefly of brain affections in children, and should always lead to anxious enquiry; it sometimes indicates intestinal derangements, and especially those caused by *Worms* (which see).

STRIGIL, or STRIGILUS. The name given to a scraper, or flesh-brush, used for purposes of friction, and to remove dirt and perspiration from the body when bathing.

STRONTIUM. A metal so named because first discovered at Strontian, in Scotland. It is the base of *Strontia*, which, on account of its burning with a crimson flame, is much used in the manufacture of fireworks.

STROPHULUS. The name of a genus of cutaneous diseases, comprising several papular affections peculiar to infants, such as Red Gum, or Tooth-rash. They consist of pimples on the face, neck, arms, and loins, generally in clusters, surrounded by a reddish halo. Wilson and Bateman distinguish the following species:—*S. intertinctus* Red Gum, or Gown; *S. albidus*, White Gum; *S. confertus*, Rank Red Gum; *S. volantiens*,

Rash. See *Skin Diseases*.

STRUMA (Latin *struo*, to heap up). This is another name for scrofula, or *King's Evil* (which see).

STRYCHNIN. The alkaloid discovered by Pelletier in the fruit of the *Strychnos Nux Vomica*, and other plants of the same genus. This substance is one of the most powerful excitants of the spinal system of nerves known; when given in an overdose it causes convulsions and tetanic spasms. It is sometimes administered in obstinate cases of paralysis, in doses of from  $\frac{1}{20}$  to  $\frac{1}{12}$  of a grain, carefully watching its effects. This should on no account find a place in the family medicine chest; it is far too dangerous for domestic administration; 16 grains mixed with an ounce of lard may with advantage be rubbed into paralysed parts. See *Nux Vomica*.

STUPA, or STUPPA (Greek for *Tow*, which see).

STUPOR (Latin *stupesco* to be senseless), Insensibility; hence the terms *Stupor dentium*, applied to what is generally called *Teeth on edge*; and *Stupefacients*, to medicines which produce stupor, properly *Narcotics* (which see).

STYE (Saxon *stithan*, a springing up). This well-known inflammatory tumour in the eye-lid, is often very troublesome; delicate and unhealthy children are much subject to the affection, but sometimes adults, and even those in robust health, are liable to it. At first there is a little irritation and itching in the upper or lower lid of the eye, but more frequently in the former; then there is redness and swelling, and a small boil is developed among the roots of the eyelashes; after two or three days this bursts, and matter escapes; a scab forms, which soon drops off, and probably in a few days there is no symptom remaining to mark the spot.

*Treatment.* Commence by fomenting the eyelids, night and morning, with warm water, or decoction of poppies, and keep on during the night a warm bread poultice; continue with this until the matter is formed and discharged; then, when the scab is formed, smear the margin of the lids night and morning, with a little dilute Citron ointment, taking care that it does not go into the eye; this may be continued for a week or so, giving at the same time 2 grains of Grey Powder, with about 5 grains of Rhubarb, every other night. Persons who are subject to Styes, should bathe their eyelids with a weak solution of salt in water every night and morning.

and *eidos*, likeness). This is a name given to a pencil-like process of the temporal bones. From this root we have the surgical terms—*Stylo glossus*, *S. hyoideus*, and *S. pharyngeus*, three muscles arising from the styloid process, the first of which moves the tongue laterally and backwards; the second raises the os hyoideus; and the third raises the pharynx, and draws up the thyroid cartilage. *S. mastoid* is the name of a foramen situated between the styloid and mastoid processes, through which the portio dura of the seventh pair of nerves passes; also, of an artery which enters the foramen. *S. maxillary*, the name of a ligament which extends from the styloid process to the angle of the jaw.

**STYPTIC** (Greek *stypē*, tow, whence comes our Latin *stipo*, English *stop*). Originally no doubt applied to any vegetable fibre like tow, which might be used for stopping or compressing the apertures of wounds, and so prevent the bleeding: applied now to all astringent applications which have the effect of arresting hæmorrhage, such as a saturated solution of Alum, Sulphate of Iron or Zinc, Cobweb, Creosote, Tincture of Benzoin, and Dutch Drops. Pounded Ice, and other extremely cold applications, although they do not act exactly in the same way, are also good Styptics. The term is sometimes applied to any medicines which have an astringent quality. See *Astringents*.

**ST. ANTONY'S FIRE.** This is a diffused inflammation of the skin, with a tendency to spread, and sometimes extending to the cellular tissue. It is the same as *Erysipelas*, (which see).

**ST. JOHN LONG'S LINIMENT.** According to the system of St. John Long, all diseases were to be cured by friction and dietetic measures. The Liniment which he introduced, and with which, according to popular belief, he effected his pretended cures, is as follows.—Take of Spirits of Turpentine 3½ ounces, the yolk of an egg, strong Acetic Acid 6 drachms, Oil of Lemon 10 minims. Rub the Turpentine with the yolk of an egg, then add the other ingredients; shake well up, and set it by for use. When wanted again, shake the bottle, and pour a tablespoonful into a saucer; soak it up with a sponge about the size of a small apple, which has been previously dipped in hot water, and squeezed dry. With this dab the nape of the neck diligently, for five minutes or so. When the skin gets irritated and sore, apply the liniment between the shoulders, and continue to do this about every week.

**ST. VITUS'S DANCE.** This distressing

of the body, &c., resulting from the futile efforts of the will to restrain the involuntary muscles; in the convulsions the flexor and extensor muscles internally are alternately in strong action, whilst in tetanus and hydrophobia, the flexor only are exercised.

**SUB.** The Latin preposition denoting under, hence the terms *Sub clavian* and *S. clavius*, the 1st. an artery situated under the clavicle, and the 2nd. a muscle which brings the clavicle and shoulder forwards and backwards. *S. cutaneus*, beneath the skin, a name of the *Platysma Myoides*, a muscle which draws the skin of the cheek downwards, and when the mouth is shut, brings the skin of the lower jaw upwards. *S. diaphragmatica*, a plexus of nerves furnished by the solar plexus, and distributed to the diaphragm. *S. lingual*, the name of a gland situated under the fore part of the tongue: also, of a branch of the lingual artery. *S. mastoid*, a branch given off by the seventh pair of nerves, as it passes out of the stylo-mastoid foramen. *S. maxillary*, a gland situated on the inner side of the ramus of the lower jaw, and of a ganglion which occurs on a level with this gland. *S. mental*, an artery and veins running beneath the skin. *S. scapularis*, a muscle arising from the inner surface of the scapula which pulls the arm backwards and downwards. *S. sternal*, the name of the lymphatic beneath the sternum. *S. sultus*, twitching, sudden and irregular snatches of the tendons. In chemistry, also we have such terms as *Sub resin* and *Sub salts*, the first being that portion of a resin which is soluble only in boiling alcohol, and is thrown down again as the alcohol cools; and the last, originally, any salt which contains an excess of base, as sub-carbonate of soda. Also *Sub-tepidus*, as applied to the temperature of a bath—lukewarm.

**SUBLIMATION.** The process by which volatile substances are raised by heat, and again condensed into a solid form; it is, in fact, dry distillation. The substances so obtained are called *Sublimates*; one of the commonest examples of these is the *Sulphur Sublimatum*, commonly called Flour of Brimstone.

**SUBER.** The scientific name of the cork tree, or *Quercus Suber*, of the natural order *Cupulifera*, of whose bark, the sub-epidermal tissue, and not the bark itself, as most persons suppose, is the cork of commerce, so useful for stopping phials and other purposes. Among the components of cork, the most important is a peculiar sub-



soluble Vegetable principle, which, on



combination with Nitric Acid, forms *Suberic Acid*.

**SUBSTANTIVE.** A term applied by Dr. Paris to those medicinal agents which possess an inherent and independent activity. Those which are in themselves inert, but are capable of imparting impulse, and increased energy to the former, have been called *adjective* constituents.

**SUBUBERES** (Latin for under the breasts). A term applied to children during the period of suckling; when weaned, they are called *Exuberers*.

**SUCCEDANEUM** (Latin *succedo*, to follow). A medicine substituted for another. From the same root we have *Succentariatus*, the former name of the pyramidal muscles of the abdomen, and of the renal capsules.

**SUCCINUM** (Latin for *Amber*, which sec).

**SUCCUS** (Latin for juice; the expressed liquor of a fruit or plant: *Succus spissatus* is inspissated juice, or that which is thickened by heat.

**SUCCUSSIO.** A mode of exploring the chest by forcibly shaking the patient's body, and noticing the sounds which are thereby produced; in some suspected visceral affections this may be serviceable, but since improved modes of auscultation have been introduced it has seldom been practised. See *Auscultation*.

**SUCTION** (Latin *sugo*, to suck). By the act of suckling the pressure of the atmosphere is removed from the papilla, and the milk is consequently ejected by this pressure acting upon the *breast*, by a reference to our article on which it will be seen how artificial pressure is sometimes employed to

lacteal fluid. Suction is also sometimes resorted to in cases of bites by venomous creatures; if there is no abrasion of the skin of the lips of the sucker, and the venom be immediately spat out, and the mouth washed, this attempt to save the life of a fellow-creature may be safely made.

**SUDOR** (Latin *sudo*, to sweat). *Perspiration* (which see). Hence we have the terms *Sudor Anglicus*, the Sweating Fever, a contagious pestilential fever which appeared in England in the 15th and 16th centuries; *Sudorifics*, medicines which occasion sweating (see *Diaphoretics*); *Sudamina*, vesicles resembling millet seeds, which appear in puerperal fever, typhus, &c. (see *Malaria*); *Sudatorium*, a name given to an air bath raised to a temperature of 85°, by which profuse perspiration is produced. See *Bath*.

**SUFFITUS** (Latin *suffio*, to fumigate). Fumes of burning substances used for *Fumigations* and *Inhalations* (which see).

**SUFFOCATION.** This is the act of choking or stifling; a stopping of respiration either by intercepting the passage of air to and from the lungs, or by inhaling smoke, dust, or air that is not respirable. Thus, death by hanging, drowning, stifling by carbonic acid gas or other mephitic vapours, are each and all Suffocation; although the term is sometimes considered to signify only death by agents which do not compress the windpipe, as in the first case (or, as we term it, *Strangulation*), but, by stopping the supply of oxygen to the lungs, render it unfit for circulation, and poisonous to the system. Suffocation often arises from very trivial causes; too many clothes over the mouth of an infant will produce it; swallowing a piece of food too large for the passage; even a small piece of potato-skin over the opening of the larynx, so as to stop the passage of air, has done this; so has a pin and a cherry-stone accidentally drawn into the air passages, and husks of wheat drawn into the windpipe, as was the case with a young man whose head was thrust into a sack of bran. Infants have often been suffocated by being overlaid by heavy sleeping nurses or mothers, and they are always in danger of being so, when left with a bag of wash-leather, or piece of rag filled with sugar, or a raisin, to suck, and be kept quiet. People have lain down by lime-kilns and charcoal fires, and met their death by *Asphyxia*, which is but another name for Suffocation. See the heads *Carbonic Acid*, *Choke Damp*, *Foul Air*, &c.

**SUFFUSION** (Latin *suffundo*, to pour down). A term applied by Celsus to denote

generally imperfect vision, or loss of sight, whether arising from cataract or from affection of the nervous structure. In the latter case it was sometimes called *Suffusio nigra*, or *Cataracta nigra*. The ancients supposed that opacity was caused by something running under the crystalline humour; hence the application of this term.

**SUGAR** (Latin *saccharum*). This is one of the most generally used and agreeable articles of diet of which man partakes. Like starch, however, it is not nutritious, but is taken into the system with the object of maintaining animal heat. Persons may even get fat upon sugar, but the living tissues, as we have explained when speaking of starch, are not nourished by any of the carbonaceous productions of plants. It is true, that in countries where the sugar cane is grown, slaves and their children, during the period of its gathering, partake of it in large quantities, and are nourished upon it; but the sap of the sugar-cane, and the cane itself, contain other alimentary principles besides sugar, which assist in the nutrition of the body.

Sugar, being readily soluble in water, is more digestible than starch. Of the substances which maintain animal heat, it is the most easily digested; and hence we may see a reason why it is supplied to the young of the higher forms of animals. For this purpose, it is secreted, by the female of all the mammalia, in the milk, which is furnished universally to their young during the first months of their existence. The instinctive love of sugar, so well known as a distinguishing character of the child, seems to point out its adaptation to the wants of the infant system. Readily digestible, however, as sugar is, it is one of those substances which speedily undergoes decomposition. The changes it undergoes in *fermentation* we shall again have to refer to; but when taken into the stomach and the system, its elements seem to enter into secondary combinations, which are very injurious. This is why so many persons find it necessary to limit the quantity of sugar which they take in their diet. The changes, however, which it so frequently undergoes in the adult system, do not appear to take place in children; hence the child may eat sugar with impunity, although its parents may not. The practice of inducing children to give up sugar in their tea and other food is to be condemned, on the ground that sugar is evidently intended by nature to supply them especially with the materials for maintaining animal heat. It is very unreasonable, and sometimes a dangerous

practice, for fathers and mothers to insist that what is good for them as diet, must be for children—or that what is injurious for them is also for their children.

Although there are various kinds of sugar, having a different composition, they seem all to act dietetically in the same way upon the system. The most common form of sugar in plants, and that which is most frequently eaten in diet, is cane sugar, so called from its being yielded by the sugar-cane. It consists of—Carbon 12 atoms; Hydrogen, 9 atoms; Oxygen, 9 atoms; Water, 2 atoms.

The other kinds of sugar which are eaten, are milk sugar  $C_{24} H_{19} O_{19} + 5HO$ ; grape sugar  $C_{12} H_{12} O_{12} + 2HO$ . It will be seen that cane sugar resembles starch in its composition, and it is probably formed in the plant from that body. Although cane sugar is found in the sugar-cane, the beet, and the maple, it is not so frequent in plants as grape sugar, which is the form in which sugar is found in the fruits and other parts of plants, which may be sweet.

Besides the sugar-cane, many other species of plants belonging to the family *Gramineæ*, or Grasses, contain sugar; such as *Maize* (which see), and the stalks of *Barley*, *Oats*, *Rice*, *Wheat*, &c., all of which yield a sap holding sugar in solution. Most of the fruits of plants also which are eaten by man contain it; and although in many instances they possess other dietetic principles, yet in such cases as the fig, the date, raisins, and prunes, this is the distinguishing ingredient.

It is found that whatever kind of sugar is used for this purpose, that it is first changed into grape sugar. So that if we take two atoms of grape sugar,  $C_{24} H_{28} O_{28}$ , and expose it to the process of fermentation, it will be changed into

	C.	O.	H.
4 atoms of alcohol.....	16	8	24
8 atoms of carbonic acid ....	8	16	0
4 atoms of water .....	0	4	4

Grape sugar ..... 24 28 28

The various beverages thus formed are known by the names of *Wines*, *Spirits*, and *Beers*.

Sugar undergoes chemical changes with great facility, and one of these has caused it to be used very extensively in a class of compounds called fermented beverages. When sugar in solution at a high temperature is exposed to the action of various substances in a state of decomposition, it becomes changed. The elements, carbon, hydrogen, and oxygen, of which it is com-



duced. The composition of alcohol is—Carbon, 4 atoms; oxygen, 2 atoms; hydrogen, 6 atoms.

Sugar is a powerful antiseptic; in medical practice it is chiefly used to cover the nauseous taste of drugs; it is the substance of which all medicated syrups are made, and it is used in the formation of pills; it is found in the urine in the disease called *Diabetes* (which see); and modern chemical inquiry has shown that it is formed naturally in the liver; probably it also exists in the blood and most of the other fluids of the system. See *Sweets, Syrup, &c.*

SUGELATION (*Sugello*, to discolour the skin by a blow). Extravasated blood, the result of a bruise or blow). See *Ecchymosis*.

SUICIDE (Latin *suicidium* from *se*, and *cædo* to slay), self-slaughter. In the eye of the law a *felo de se* is a person who, being of the years of discretion, and in his senses, destroys himself. In opposition to the hitherto prevalent opinion, that the cause of self-destruction is, in the majority of cases, a mental act, unconnected with a disturbed condition of the bodily functions, and incurable by any process of medical treatment, Dr. Forbes Winslow asserts his belief, that the suicidal idea is *almost generally* connected with a morbid condition of the body, and is often the only existing evidence of such an affection; that it is, with a few exceptions, universally associated with physical disorder, disturbing the healthy balance of the understanding; and that this bodily affection, which is, in nine cases out of ten, *the cause* of mental irregularity, is easily curable by the judicious application of remedial means.

The argument to be adduced from this well grounded belief, is that persons who manifest suicidal tendencies should be looked upon not as hopelessly insane, but as diseased persons, whose malady is quite within the reach of proper remedies; this is a more cheering view of the subject, both to those so affected, and to their friends and the public, than that too commonly entertained, that one into whose mind the idea of committing suicide has entered, is in a hopeless helpless condition, requiring only restraint to prevent his fulfilling his unholy design. (See *Hereditary Tendencies*).

SULCUS. A groove or furrow, generally applied to bones.

SULPHATE. A combination of Sulphuric Acid with a base, which may be either an alkali, or a metallic oxide. The Sulphates

thus, we have those of Ammonia, Baryta, Copper, Iron, Magnesia, Potash, Soda, Zinc, &c., a description of which will be found under those several heads. A *Sulphuret* is a compound of Sulphur with an electropositive or inflammable body, as the Sulphuret of Potassium; the principal ores of Iron, Copper, Lead, &c., are the *Sulphates* of these metals; *Sulphorinic Acid* is the name given by Vogel to an acid or class of acids, which may be obtained by digesting Alcohol and Sulphuric Acid together by heat; probably this is merely a hyposulphate with some oily matter: *Sulphic Salts* are double Sulphurets, in the constitution of which may be traced a close analogy to Salts.

SULPHUR, or *Brimstone*. This useful mineral, which, in one form or another, enters so largely into our medical formulary, is one of the most abundant constituents of the globe, being a constant element in most animal as well as vegetable substances, and existing in the form of metallic sulphurets, and in the combination of Sulphuric Acid with various bases, such as lime, magnesia, &c., almost everywhere. Our readers must be sufficiently familiar with the appearance of this substance in its unmixed states. "The Roll Sulphur" is merely the mineral fused and cast into moulds; in "the Flowers of Sulphur," we have it as vaporized by heat and then condensed—this we call *Sulphur Sublimatum*; in "the Milk of Sulphur," so called from its whiteness, it is levigated and washed; this is the *Lac Sulphuris* of the Pharmacopœia, and is the best form for internal administration, being the most pure, and free from that strong odour which renders the use of Brimstone so objectionable. That much of it when taken passes off by the skin in what is called insensible perspiration, we know by the blackening of a silver watch or coins, which a person taking it may have about him.

Sulphur acts upon the system as a laxative, and is commonly given as a purifier of the blood to children and scrofulous persons: combined with Cream of Tartar, and other mild purgatives, it is a good medicine for *Piles* (which see): as a deobstruent in affections of the liver, it is given in small doses with good effect; it also acts as a diaphoretic and alterative, and is very useful in skin diseases, especially Itch, on which, applied externally, it acts as a specific. (See that head).

By adding an acid to one of the alkaline sulphurets, we obtain Sulphureted Hydrogen Gas, which may be diffused through

terine and liver affections, and skin diseases, for which a bath so prepared is generally efficacious: commonly, however, the Sulphur bath is made by adding the Flower, or Milk of Sulphur, to boiling water, and using it when sufficiently cool: this is a more cleanly way of treating Itch than smearing the body over with Sulphur Ointment, as is generally done.

Sulphur, as an alterative, should be given in doses of from 5 to 20 grains three times a day; as a purgative from 1 to 3 drachms. Of either of the Alkaline Sulphurets the dose is from 2 to 10 grains. The Milk of Sulphur is best given in milk, and acts all the better mixed with an equal weight of Magnesia; of this combination about a drachm is the maximum dose. The Sulphuret of Mercury with Sulphur, prepared by rubbing together equal quantities of Quicksilver and Brimstone, was at one time a favourite medicine, much given as an anti-venereal, alterative, and anthelmatic, under the name of Æthiop's Mineral; it is a most disagreeable form of preparation, being perfectly black, and is now nearly superseded by more active and agreeable forms; it is, however, useful, especially in serofulous granular swellings; the dose is from 5 to 30 grains; Treacle is the best vehicle of administration.

*Sulphuret of Carbon, or Carburet of Sulphur*, as it is sometimes called, is a light, volatile fluid, very inflammable, and having a penetrating odour. It is a diffusible stimulant, diaphoretic, and emmenagogue, in doses of from 2 to 5 drops; in large doses it is a dangerous narcotic; it has been chiefly given as a sudorific in rheumatism, and applied externally as an embrocation to rheumatic joints, and to the abdomen for the after-pains of labour; when inhaled it is an anæsthetic.

*Iodide of Sulphur* has of late been much used as an outward application in cutaneous affections, and also given internally in the same; dose from  $1\frac{1}{2}$  to 2 grains; Dr. Copeland recommends its inhalation in humoral asthma; and Dr. Hooper has employed it as a fumigation in skin diseases; his direction is—Mix  $1\frac{1}{2}$  ounces of Sulphur and 1 drachm of Iodine together, and use one-twelfth part at the time. Escobar recommends it for incontinence of urine, mixing 10 grains with  $\frac{1}{2}$  a drachm of Gum Arabic Powder, and taking a sixth part night and morning. The strength of the Ointment for outward application is from 20 to 30 grains to 1 ounce of lard.

SULPHURIC ACID. See *Acids*.

the terms *Super-cilium*, the ridge of hair above the eyelid, commonly called the eyebrow; *S. fœtation*, literally the impregnation of a person already pregnant, a term formerly applied to a case in which a dead and apparently premature fœtus was brought forth with a living one. There can be little doubt, however, that the conception of the two must have been coincident.

SUPINATION (Latin *supinus*, lying with the face upwards). This is the act of turning the palm of the hand upward, by rotating the radius upon the ulna. The opposite action is called *Pronation*. The muscle which turns the palm of the hand upward is called the *Supinator*.

SUPPOSITORY (Latin *supposito*, to put under.) A medicated solid of a conical or oblong shape introduced into the rectum. The object is to allay pain or irritation; hence the Suppository is generally of a sedative nature, and is often composed chiefly or wholly of opium, made up like a large pill or bolus.

SUPPURATIVES (Latin *sub* beneath, and *pus* matter). Applications which promote the formation of matter by inducing what is called *phlegmonous* inflammation, differing in this respect from rubefacients and vesicants, or blisters which produce *erithematous* inflammation. We apply Suppuratives to abscesses, boils, &c., to hasten their ripening, as it is called. Among those most commonly used we may mention warm linseed poultices, and hot fomentations. The process by which *pus* is formed, or deposited on the surface, or in the substance of any tissue, is termed *Suppuration*.

SUPRA (Latin preposition, above). Hence the terms *Supra-orbital*, an artery sent off by the ophthalmic along the superior wall of the orbit, and passing through the Supra orbital foramen; *S. renal*, the name of two capsules situated above the kidneys; *S. spinatus*, a muscle arising from above the spine of the scapula, and inserted into the humerus; it raises the arm.

SURDITUS (Latin *surdus*, deaf). *Deafness* (which see), and *Hearing*.

SURGERY, or as it was anciently called, *Chirurgery* (Greek *cheir* the hand, and *ergon* work). That branch of medicine which treats diseases by the application of the hand alone; the employment of instruments, or the use of topical remedies. The surgeons of but a few centuries ago were a rude, illiterate set of men, their calling being associated with that of the barber. It was to the barber surgeons that Edward IV. granted a charter of incorporation, and from thence



members are, generally speaking, men of education and ability. The right to put M.R.C.S. after their names is a proof that they have passed an examination in the different branches of Surgery, and have obtained a legal right to practice as surgeons throughout Great Britain and the colonies. See *Apothecary, Medicine, Practice, Physician, &c.*

**SUSPENDED ANIMATION.** This is a term employed to designate the state of children still-born, and the effect of inhaling carbonic acid and other deleterious gases, by strangulation and by submersion: the respiration being interrupted, the blood cannot receive its due supply of oxygen, and is therefore unfit for the purposes of life; the patient is, as it has been generally and forcibly expressed, "poisoned by his own blood."

We have already, under the head of *Drowning, Carbonic Gas, Infants*, alluded to the methods of effecting a restoration to life in these cases; but the subject is so important that we deem it our duty to give here a fuller explanation of the *modus operandi*: we cannot do better than give it in the words of Dr. Marshall Hall, who, in his edition of "Underwood on the Diseases of Children," says:—

"The first object is to excite respiration, and the means of doing so are these:—

"The *fifth* pair of nerves should be excited by forcibly dashing very small quantities of cold water on the face, or by stimulating the nostrils by ammonia, snuff, pepper, or the point of a needle.

"The *spinal* nerves should be excited by forcibly dashing cold water on the thorax, and on the thighs, or by tickling, or stimulating the sides, the buttocks, the arms, the soles of the feet, &c.

"If these attempts to excite respiration fail, inspiration is to be imitated by artificially distending the lungs.

"To effect this, the practitioner's lips are to be applied to those of the infant, or adult, closing the nostrils of the patient, and gently pressing the trachea upon the œsophagus. The chest is then to be pressed, to induce a full expiration, and allowed to expand, so as, if possible, to effect a degree of inspiration.

"But it is important, in doing this, that the practitioner himself should previously make several deep and rapid inspirations, and finally a full inspiration. In this manner the air expelled from his lungs into those of the patient will contain more oxygen and less carbonic acid, and conse-

quently, will be more fit to sustain the dying embers of life.

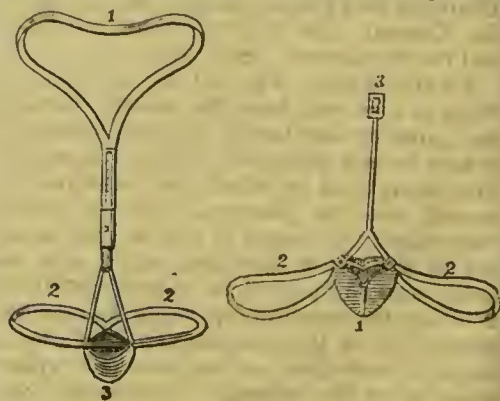
"In the midst of these efforts it should in the next place, be the office of two other individuals to maintain or restore the temperature of the patient, by gently, but constantly, pressing and rubbing the limbs between their warm hands, passing them upwards in the direction of the venous circulation.

"When respiration is established, the face must still be freely exposed to the air, whilst the temperature of the limbs and body are carefully sustained.

"As soon as possible, a little warm liquid, as barley water, at blood heat, should be given; in the case of infants, by means of the proper bottle, furnished with leather or soft parchment. A teaspoon must not be used, for fear of choking. If the infant draws the liquid through its own lips by its own efforts, there is no danger.

"Lastly. If all these remedies be tried in vain, galvanic or electric shocks should be passed from the side of the neck to the pit of the stomach, or, in the course of any of the *respiratory* nerves, and their appropriate muscles. No time should be lost in sending for a proper apparatus; but, should the lapse of an hour, or even more, take place, before it can be obtained, still it should be sent for and tried." See *Asphyxia, Drowning, Still-born, &c.*

**SUSPENSORY** (Latin *suspendo*, to suspend). A bandage for supporting the scrotum; this is simply a netted or woven bag, made of some soft material, with a couple of strings to lie over the tops of the hips for support; there are several more elaborate and more serviceable contrivances; among them may be named "Huxley's Scrotal Suspenders," and Bourgeaud's



Suspensory Bandage, of both of which we give cuts. In the first we have simply a band of elastic material passing round the

while other bands pass from the back part of the bag (3) and round the upper part of the thigh, and fasten in front; every part of the material is very elastic, so that it furnishes support without being felt as an inconvenience. In the second, the bag supporting the scrotum (1) is made of a delicate webbing of silk and India-rubber; the bands running round the thighs consist of the most yielding elastic tissue; a third band (3) is adapted to the upper part of the bag, and is intended to be fastened to the flannel waistcoat of the patient. The scrotum is thus kept raised and fixed in *situ* without distressing the organ, the suspensors allowing of the most varied movements of the body. For more particulars on this head see *Trusses*.

**SURSURRUS.** An acute cutaneous hissing or whizzing sound, or sharp kind of whispers caused often by some obstruction of the bronchial passages.

**SUTURE** (Latin *suo*, to sew). A mode of uniting the edges of a wound by stitches. Surgeons distinguish four different kinds, viz., the Interrupted and Uninterrupted, the Twisted and the False, or Dry Suture; it would be useless to describe these, as only one practiced in the art of healing, could enter into their peculiarities. It is sometimes advisable in the absence of professional aid, for the edges of a bad wound to drawn together, and this may be effected by a tolerably stout needle, threaded with a piece of strong silk; the stitches should be set some way in from the edges of the cut, and should not be placed very near together. See *Cuts, Wounds*.

*Suture* is a term also applied to the junction of the bones of the cranium by a serrated line, resembling the stitches of a seam. There are four Sutures in the cranium, called the Cranial, the Sagittal, the Lambdoidal, and the Squamous. See *Skull*.

**SWALLOWING.** The act by which anything is conveyed from the mouth, through the gullet or œsophagus, into the stomach; it may be said to consist of three stages, the first being that by which the substance is passed into the pharynx, this is purely voluntary; the second is not so, but is an act of the reflex function, which may be easily excited by artificial means; the third is altogether involuntary, being due to the irritability of the œsophagus, which by a series of muscular contractions and expansions forces the substance downward. See *Gullet, Œsophagus*.

**SWEAT.** This is a vulgar name for the watery vapour which perspires from the

*Perspiration*.

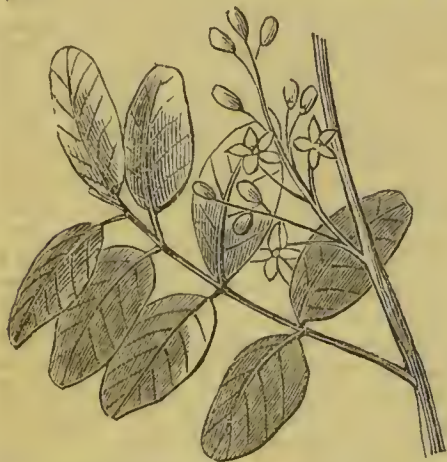
**SWEETS—SWEETMEATS.** Toffy, Rock, and other articles of confectionery, are not necessarily unwholesome; if made of sugar, unmixed with any deleterious substances to colour or flavour them, they may safely be eaten, if not too frequently, or in too large quantities, so as to cloy the appetite to the rejection of more nutritious food; but, unfortunately, we cannot depend upon the purity and innocence of the ingredients employed in the wholesale manufactory of Sweets, whose consumption has of late so largely increased among the juveniles of this country. The investigations of the "Lancet Sanatory Commission" have proved that poisonous substances are employed to a considerable extent to give colour and flavour to sugar confectionary: Arsenite of Copper, Verdigris, and a mixture of Chrome and Prussian Blue, has been found in the greens; Chromate of Lead in the yellows; Vermilion and Oxide of Iron in the reds; the Carbonates of Lead and Zinc, Chalk, and the Sulphate of Baryta in the whites: which almost invariably contains a considerable proportion of Gypsum or Plaster of Paris, which, although not so decidedly poisonous as some of the above articles, is certainly deleterious; of this substance carraway comfits and the frosting of cakes, are in part composed, and the cheap peppermint and other lozenges sold in market places and country shops, are sometimes adulterated with it to the extent of one-third of their whole substance, as was proved in the investigation which took place at Bradford, in 1858, in consequence of the poisoning of a number of persons by some lozenges, into which Arsenic had been put instead of Plaster of Paris, or "Daff," as it is technically called: the mistake having been made by the apprentice of the druggist who supplied the lozenge maker. The figures and other ornaments on Twelfthnight, and other cakes, should never be given to children to eat, as they are made up, to a great extent, of gypsum, and if coloured, should be viewed with increased suspicion. The oil of Bitter Almonds, Peach Kernals, and Laurel flavouring largely employed in confectionary, are decidedly poisonous, although not so much so, perhaps, as the minerals above mentioned; the Jargonelle Pear flavour, which has of late obtained much favour, is made from the fusil oil, obtained in the process of distilling spirit from grain and potatoes; it has been known to produce dangerous head symptoms in children. The sugar confectionery which is safest to take, is that



Cloves, or some other aromatic oil which is not likely to have undergone sophistication.

**SWEET SPITTLE.** An increased secretion of saliva, distinguished by a sweet or mawkish taste. See *Saliva*.

**SWIETENIA MAHOGONI.** This is the scientific name of the Honduras Mahogany tree, the bark of which is astringent and bitter, and has been found to resemble Peruvian Bark in its action on the human system. The *Soymida Febrifuga*, or East



Indian Mahogany, is also said to possess the same febrifuge properties; the dose of the Powder is about 30 grains: Dr. Ainslie found that when given beyond the extent of 4 or 5 drachms in 24 hours it produced vertigo and stupor.

**SWINE-POCK** or **Pox**, is a variety of Chicken Pock (which see). It is distinguished by the conical form of its eruptions. See *Varcola*.

**SYCOSIS** (Greek *sykin*, a fig). An eruption of inflamed fleshy dark red tubercles in the hairy part of the face and scalp; they generally cluster together, and often several of them run into one; the discharge is sometimes acrid and offensive. The above name was given to this form of eruptive disease on account of the granulated and prominent surface of the ulceration, which has been thought to resemble the pulp of a fig. Bateman distinguishes two species: *S. menti*, Sycosis of the beard, sometimes called *Mentagra*; and *S. capillitii*; Sycosis of the scalp. See *Skin Diseases*.

**SYMMETRY** (Greek *syn*, together, and *metron*, a measure). The exact and harmonious proportions of the different parts of the body, so as to give not only grace and beauty to the whole form and movements,

health; this, in a perfect degree, deformed persons seldom enjoy, for where there is distortion and deformity in the frame there will generally be, from pressure, imperfect development, or other causes, a defective operation of some of the vital functions. The laws of Symmetry are perfectly consistent with those of health, and the pity is that they should be so little understood, or that fashion should be suffered to overrule both the one and the other. See *Dress, Education, Spine, Stays, Tight Lacing*.

**SYMPATHY** (Greek *pathos*, affection). In the treatment of diseases it is oftentimes very difficult to discover whether the train of symptoms, which we investigate for our guidance, are directly the result of certain organic or functional derangements, or of a reflex or Sympathetic action of one set of organs upon another, and were we not aware of the intimate connection, by nervous sympathy, which exists between all parts of the system, we should often be led far from the real seat of mischief, and into a very erroneous, perhaps mischievous, line of procedure. Not only in the regions of psychology then, are we to look for ever-living and acting Sympathy, but also in those of physiology; not only does mind sympathize with mind, in a mysterious current of interchanging feelings and affections, but body sympathizes with body, and the different members and organs with each other; hence with disease of the liver, we often have pain in the point of the shoulder; in that of the heart, the arm is frequently affected, and the urethra, in calculus of the bladder; when the stomach is disordered, we constantly find pain in the head; a contusion of the latter part will cause nausea and vomiting, and with disease of the brain, there is sometimes tingling in the extremities, the precursor of paralysis. All these are *nervous sensations*, the effect of Sympathy. Then again there are sympathetic *motions and actions*; stimulate the nostril and we sneeze; tickle the fauces and we vomit; such is the action of the reflex functions. If cold is applied to the skin, we have increased action of the kidneys, still sympathetic; and many other instances might be adduced in illustration of this influence, which often assumes the character of an imitative faculty, thus, if one person in a company yawns, the rest will feel a strong inclination to do so too.

The *Sympathetic Nerves* form a portion of the great nervous system, and have been so called from their intimate communication, by means of ganglia and filaments, with all

chief viscera of which they are distributed. A *Sympathetic disease* is one which follows closely on another disease, of which it is supposed to be a consequence.

**SYMPTOMS.** Most diseases which affect the human system have their marked Symptoms, which to the experienced eye clearly indicate their nature and progress, and by means of them it is that the medical man is enabled to form his *Diagnosis* (which see). Not all, however, present these Symptoms in so clear and unmistakeable manner, that the mind can at once decide as to the precise nature of the malady under which the patient suffers. Some belong to a whole class of diseases, each of which requires some peculiarity of treatment distinct from the rest; some are common to diseases of a very opposite character; and it is only by very nice observation and weighing of one against the other, and of circumstances which modify them, that their indications can be correctly read. Symptoms, then, are so many outward and visible signs of inward disease. Some of them are so palpable that they cannot fail to be observed; others so slight and obscure that only by one taught to look for them are they likely to be noticed; but all are important links in a chain of evidence which the medical man carefully weighs, and convinced by which of the nature of the enemy he has to grapple with, he pursues the course of treatment which he feels to be right with boldness and decision. We can say nothing here of the Symptoms peculiar to individual diseases, as it would occupy too much space to do so; nor is it necessary, as they are mentioned under their several proper heads.

**SYN** is a Latin preposition, signifying *with* or *together*; for the sake of euphony, the final *n* has been changed into *m* before the labials *b, m p, ph, ps*, &c., into *s, l, r*, before these letters, and is entirely omitted when followed by two consonants: hence we have—

*Sym-blepharin*: a connection of the lid to the globe of the *Eye* (which see); *Symphysis*: the growing together or connection of bones which have no manifest motion, as the *Symphysis Pubis*: the operation of dividing this bone is called *Symphysiotomy*; (see also above *Sympathy* and *Symptom*).

In the following terms the prefix retains the terminal *n* unchanged:—*Syn-arthritis*, articulation of a joint without manifest motion; *Syn-chondrosis*, articulation by means of intervening cartilage; *Syn-chronosis*, that which occurs in equal times, as the stroke of a pulse; *Syn-chysis*, a con-

of the humours of the eye from blows, attended with rupture of internal membranes, capsules, or to the conversion of the vitreous humour into a fluid state; *Syn-clonus*, multiplied or compound agitation—a kind of spasm; *Syn-cope*, a sudden suspension of the heart's action, accompanied by cessation of the respiratory functions, internal and external sensation, and voluntary motion; *Syn-desmology*, a description of ligaments; *Syn-desmosis*, the connection of bones by ligaments; *Syn-echia*, an adhesion,—that of the uvea to the crystalline capsule is called *S. posterior*; that of the iris to the cornea, *S. anterior*: *Syn-izesis*, collapse of the pupil; *Syn-neurosis*, the connection of bones by tendon, formerly mistaken for nerve; *Syn-ochus*, continued fever, the common fever of this climate,—*S. mitior* and *S. gravior* are the names given to the milder and more intense forms; *Syn-ovia*, a peculiar liquid found within the capsular ligaments of the joints, which it lubricates; *Syn-thesis*, a generic term in surgery, formerly comprehending every operation by which parts, which had been divided, were re-united; also the anatomical connection of the bones in the skeleton; in chemistry it signifies the formation of any body from elements, as opposed to *analysis* or the resolution of a body to its component parts. In the next we have the terminal *n* changed into *s*: *Sys-sarcosis*, the connection of bones by muscle; and here it is altogether dropped, *Sy-stole*, the contraction of the heart auricles and arteries, opposed to *diastole*, or their dilation.

**SYNOVIA** (Latin *syn*, with Greek *ova*, an egg). A name given to a peculiar liquid formed within the capsular ligaments of the joints, the opposed cartilaginous surfaces of which it is intended to lubricate, and thus facilitate their various movements. It contains a considerable proportion of albumen, and hence has been likened to the glaire of egg, and called the *Synovial fluid*; from its unctuous quality it has obtained its popular name of "joint oil." Under circumstances of irritation in the joint, there is a great increase in the secretion of this fluid; we find this to be the case in what is called "white swelling" of the knee.

**SYPHILIS** (Greek *siphlos*, shameful.) The venereal disease, vulgarly called Pox, formerly Great Pox, as distinguished from Varicella or Small Pox, and French Pox, as supposed to be derived from France. Syphilitic disease, which is contracted from impure sexual connexion, is not a subject on which, from choice, we should dwell at any



to the completeness of our work that this should have a due share of attention, we proceed to make such remarks as may be serviceable. Syphilis does not generally give any indications of its presence until about three, or from that to seven days after the disease is contracted; the first noticeable symptom is the appearance of a number of pimples with inflammatory bases, which pass into simple ulcers, which are called chancre. These are on the penis in men, on the labia in women; they should be touched with caustic once a day, and the parts should be well washed frequently, to prevent any discharge which may come from them lodging beneath the skin, and so causing irritation, and, as a natural consequence, increased inflammation. Chancres are not generally difficult to cure, if properly attended to; but they are sometimes very obstinate, and for a long time defy the best medical skill that can be brought to bear against them. But the syphilitic poison, when it has once entered into the system, is with great difficulty eliminated, and sometimes shows itself in children several generations removed from the person originally infected. It may be communicated by a pregnant woman to the child in her womb through the medium of her blood, by which the foetus is nourished; and thus, as in numerous other cases of disease, the children suffer for the sins of the parent. It is thought by most medical men that the only sure eliminator of Syphilis is Mercury; and although Dr. Graves thinks that it can be cured without, yet we are inclined to hold with the majority.

The symptoms of Syphilis may be divided into primary and secondary. *Chancre* and *Bubo* (which see) come under the first denomination; and under the last sore throat, eruptions, nodes, and disease of the nose, these latter being consequences of absorption of the venereal poison into the system and its circulation in the blood. On those parts which are essential to life, such as the brain, heart, and abdominal viscera, this poison does not appear to be capable of exercising any destructive power; but the bones, muscles, tendons, and skin readily partake of its malignant nature. Hence we see so many persons dragging out a wretched existence, a misery to themselves, and an eyesore to society—left, as it were, by the Almighty to warn others against vicious practices, and point the moral of the preacher against vice and immorality.

Concerning the nature of the poison by which Syphilis is produced, but little is

contagion of small-pox, measles, &c., produces peculiar effects, which, although varying in different persons, according to constitution, &c., are uniformly the same under similar circumstances. This poison of which the smallest particle is sufficient to produce the most violent effects, may be communicated;—1st. By the connexion of a healthy with an unhealthy person, who is affected with the disease in the genitals. 2nd. By the copulation with a healthy person, who is apparently healthy, but in whose genitals the poison lies concealed, without having yet produced any bad symptoms. 3rd. By suckling; in this case, the nipples of the wet nurse may be infected by venereal ulcers in the mouth of the child, or *vice versa*, the nipples of the nurse may be infected by venereal ulcers in the child's mouth, lips, or nose. 4th. By exposing any part of the surface of the body, as by kissing, touching, &c., to the contact of venereal poisons, especially if the parts so exposed, have been previously excoriated, wounded, or ulcerated. 5th. By wounding any part of the body with a lancet or knife infected with venereal poison.

As long as the effects of the poison are local, we do not call it Syphilis, but distinguish it by some particular name, according to its seat and appearance, as venereal *Gonorrhœa* or *Clap*, *Chordee*, *Chancre*, or *Bubo* (which see).

Respecting the *treatment* of this complaint, we can only refer to the above heads, and earnestly recommend all who may be afflicted by it to go at once to a qualified medical man, and by no means to trust in quacks and pretenders; thousands who have done this have bitterly rued their misplaced confidence. The after consequences of Syphilis are so terrible, that any sacrifice should be made to get it properly cured; and, if taken in time, and in the right manner, it generally can be. When once the venereal poison gets thoroughly into the system, and the *secondary symptoms* set in, the cure must be tedious, and very uncertain, especially if the constitution be at all impaired, so that the strength of the patient does not admit of his going through the course of medicines necessary to eliminate the poison; which if suffered to remain, will gradually eat its way into the bones and tissues of the body, producing functional derangements, and eventually, by its irritating effects, disease of one or more of the vital organs.

\*We may mention in a general way, that the medicines found most serviceable in

ties, drastic purgatives, diaphoretics, and those especially which introduce a large portion of oxygen into the system. Mercury is indispensable, and it acts best in combination with Opium. Among diaphoretics, those which are of a warm nature are best, such as Mezercon, Guaiacum, and Sarsaparilla; they excite a determination to the skin, and so throw off the poison.

The best form in which Mercury can be given is that of the Blue Pill, 10 grains night and morning will not be an overdose to begin with; if Calomel is employed, about 2 grains a day will be sufficient, guarded by a grain of Opium; if the internal administration of Mercury produces diarrhœa, it may be introduced into the system by rubbing in strong Mercurial Ointment, about  $\frac{1}{2}$  a drachm night and morning, taking at the same time Compound Decoction of Sarsaparilla  $\frac{1}{2}$  a pint 2 or 3 times a day. In Syphilitic sore throat, mercurial fumigations are found beneficial; the great object here is to prevent the destruction of the soft palate and upper maxillary bone, which cause that speaking through, and falling in, of the nose which are such manifest marks of Syphilitic diseases. When the roof of the mouth is affected, a lotion of diluted Nitric or Muriatic Acid should be used; when the larynx, the mercurial which will operate most quickly on the system is usually resorted to, this is the Oxymuriate of Mercury, or Corrosive Sublimate, which in unskilful hands is a most dangerous poison, although it forms the basis of most of the advertised speedy remedies for venereal disease.

*Syphilitic Eruptions* are generally distinguished by their coppery hue; they vary greatly with respect to size and character, being sometimes ulcerated and at others not. We can give no specific directions for their treatment, nor for that of the various other forms and manifestations of this disease, because we scarcely consider them amenable to domestic treatment.

**SYRIGMUS** (Greek *syrriggo*, to hiss). Ringing or tinkling; a sharp, shrill, successive sound.

**SYRINGE**. This well-known instrument is of various shapes and sizes, according to the purpose for which it is intended. (For cut and description of *Ear Syringes*, see Vol. I. p. 210. For *Enema Syringe* see *Lavement*, Vol. II. p. 75.) Another kind of Syringe is the *Stomach Pump*, of which a cut is given in Vol. II. p. 308.

The form of the instrument commonly used for domestic purposes must be suffi-

ciently large to be capable of holding an ounce of fluid. Pewter and bone is the material of which common Syringes have been made, generally the former; but recently glass has been introduced into the manufacture of them, and very pretty and cleanly instruments may now be had at a price sufficiently low for all purchasers.

**SYRUP**. This is a saturated solution of sugar in water. Of itself it is not medicinal, but it is made the vehicle of administration for more active substances. Simple Syrup is made by dissolving 3 pounds of lump sugar in a pint of water by the use of gentle heat. The medicated Syrups are rather numerous; those of the London Pharmacopœia are, *Marshmallow*, *Orange*, *Cochineal*, *Saffron*, *Iodide of Iron*, *Lemon*, *Mulberry*, *Poppy*, *Rhœadus*, or *Red Poppy*, *Buckthorn*, *Rose*, *Sarsaparilla*, *Senna*, *Tolu*, *Violet*, and *Ginger*; (for their properties and uses see those several heads). If made with unrefined sugar, Syrups are very likely to ferment, especially in hot weather; they should always be kept as much as possible at a low temperature, certainly under 55° Fahr.

**TABASHIER**. This is the native name of a substance which has long had a high medicinal reputation in the East. It is a transparent fluid, found in the jointed cavities of the sugar cane, and is almost wholly composed of *Silica* (which see).

**TABELLA** (Latin diminutive of *tabula*, a table). A tablette, or *Lozenge* (which see).

**TABIES** (Latin for a poison). Applied to anything which undermines, corrodes, and consumes. Hence the terms, *Tabies dorsalis*—decline of strength from indulgence in libidinous pleasures, which cause weakness in the back and loins. *T. mesenterica*—tubercular disease of the abdomen, sometimes called Mesenteric disease; the French name, *carreau*, refers to the hard and cushion-like prominence of the abdomen. Sauvages termed it *Serofula mesenterica*, as indicative of serofulous diathesis, and of the organs in which it appears. See *Atrophy*, *Serofula*.

**TACAMAHAC**. The East Indian name for a resin, which is said to be the produce of the *Elaphrium Tormentosum*. This balsamic substance is used medicinally in the East.

**TANIA** (Greek *teino*, to stretch). Applied to tape-worms: (see *Worms*); and also to a ligament resembling a long, narrow ribbon: hence we have, *Tania hippocampi*, the plaited edges of the processes of the fornix, which pass into the inferior cornua



the convex surface of the optic thalami and corpora striata. See *Eye*.

**TALC.** A fossil formation nearly allied to mica; it is chiefly employed in the composition of *Rouge* (which see).

**TALIAHOTIAN OPERATION.** A mode of forming a new nose from the integuments of the forehead, or from the arm, &c., of another person. See *Nose*.

**TALPA** (Latin for a mole). Applied to a tumour under the skin; sometimes to an encysted tumour on the head. See *Tumours*.

**TALUS** (Latin for a die, or a huckle-bone, with which the game of dice was played), Applied to the *Astralagus*, a bone resembling in shape an ancient die.

**TAMARIND** (said to be compounded of *tamar*, the palm tree, and *indus* or *ind*, the root of India). The *Tamarindus Indica* is a large spreading tree of the natural order *Leguminifera*; it is a native of the East



and West Indies, Egypt, and Arabia. The preserved fruit, which is brought to this country, is laxative and refrigerant, and infused in water forms a grateful drink in fevers. Convalescents often find the pulp a pleasant and useful addition to their diet; it keeps the bowels sufficiently open. The action of sweet purgatives, such as Cassia and Manna, is increased by this fruit; but that of the resinous cathartics is diminished by it. Preserved Tamarinds, if good, are fresh and juicy, without any musty or disagreeable smell. It is said that they sometimes get impregnated with copper from the boilers in which they are prepared. To ascertain this, clean the steel blade of a

is present, it will come out coated with the metal.

**TANNIN.** A principle obtained from oak bark, and other astringent vegetables, and so called from its forming the principal agent in the process of tanning. *Tannic Acid* is prepared from Galls treated with Sulphuric Ether; it makes a good astringent gargle or injection, in the proportion of from 5 to 8 grains to 1 ounce of distilled water; it is sometimes given in internal hæmorrhage, and also in diarrhœa; dose, from 1 to 2 grains, dissolved in water or in a pill; it is precisely similar in its action to *Gallie Acid*, (which see), and *Acids*.

**TANSY.** This common road side plant is the *Tanacetum Vulgare* of botanists, belonging to the natural order *Compositæ*. It



has a strong and peculiar odour, a warm, bitter, acrid, and aromatic taste, which is owing to the presence of a volatile oil. It is employed as a stimulant, tonic, and occasionally as an anthelmintic. Dose of the Powdered leaves from 10 grains to a drachm.

**TAPETUM, Tapes.** Literally a cloth, wrought into various colours. A term applied to the internal villous surface of the choroid coat of the *Eye* (which see).

**TAPIOCA.** The fecula or starch, so called, is the ground roots, properly prepared, of the *Jatropha Manihot*, a shrub growing in South America and the West Indies, where it is called *Cassava*; its Brazilian name being *Mandisca*. The juice of this plant is of so deleterious a nature that it is used by the Indians to poison their arrows, and even the root is so if eaten a fresh state. The roots when taken up, are washed and scraped; they are then grated or ground

pressed and preserved. The meal or pulp that remains in the press, being dried, is called *Couaque*, and is made into bread or cakes, which are called *Cassava bread*; the poisonous principle being very volatile, any of it which remains is dissipated by the heat



of baking. The expressed juice, after being allowed to stand, deposits a white powder, which when washed and dried constitutes what is called *Tapioca Meal*, or *Brazilian Arrowroot*, and by the French *Moussache*; in Guiana, *Cypipa*: this is a tolerably nutritious farina. See *Starch*.

**TAPPING.** This is an operation by which fluid collected in any of the cavities is removed: it can only be performed by a surgeon, therefore a description of it would be useless here. See *Dropsy*, *Trochar*.

**TAR.** This thick, black, unctuous substance is obtained chiefly from the pine and other turpentine trees; like *Pitch* (which see) it has been employed medicinally from the earliest times, and recently it has been strongly recommended as a remedy for bronchitis and other chest affections, the form of administration being *Tar Water*, which is made by digesting 1 ounce of Tar in 32 ounces of Water for 7 or 8 days, stirring occasionally during the time. Of the strained liquor  $\frac{1}{2}$  a pint is to be taken twice a day with milk. Some have recommended the vapour of Tar, but this has gained little favour. The substance is now chiefly used as an outward application in some skin diseases, either the Water used as a lotion, or an Ointment, made by melting together equal parts of Tar and Suet: it is an unpleasant application, and Creosote Ointment has an equally good effect. See *Creosote*.

naturalists *Lycosa tarantula*, a species common in the South of Europe. It appears to consist in an involuntary motion of the muscles, like St. Vitus's Dance or *Chorea* (which see); and it is said to be curable only by music, which causes the patient to dance, until, worn-out by fatigue, he sinks down senseless; out of this state he awakes as from a profound sleep, perfectly recovered.

**TARAXACUM.** The plant of which we here give a cut, must be well known to all of our



readers, as there are few localities where it is not met with; its medical properties are set forth under the head *Dandelion*.

**TARAXES** (Greek *tarasso*, to confound). An inflammatory affection of the *Eye* (which see).

**TARSUS.** A surgical term, signifying the space between the bones of the leg and the metatarsus. See *Foot*, *Leg*.

**TARTAR.** A popular name for the incrustation which appears on the teeth; it seems to be a deposit from the saliva, and consists, according to Berzelius, of earthy phosphate, 79; undecomposed mucus, 12.5; a matter peculiar to the saliva, 1; animal matter soluble in hydrochloric acid, 7.5. (See *Teeth*).

The substance found incrusting in wine casks, and which is, in fact, an impure Supertartrate of Potash, is also called *White* or *Crude Tartar*, as well as *White Argol*.

By Paracelsus, calculus was also called Tartar; and at present, many preparations



of Potash and Antimony; *Regenerated Tartar*, Acetate of Potash; *Salt of Tartar*, Sub-carbonate of Potash; *Soluble Tartar*, neutral Tartrate of Potash, called also Tartarized Kali, or Vegetable Salt; *Vitriolated Tartar*, Sulphate of Potash. *Tartarine* is a name given by Kirwan to vegetable alkali or Potash. *Tartrate* is a salt formed by the union of Tartaric Acid with a basis. See *Potash*.

**TASTE.** This sense resides in what are called the gustatory nerves, whose filaments are found in the papillæ of various size, which exist all over the upper surface of the tongue, especially towards the tip. (See *Tongue*).

The sense of Taste seems given to the animal kingdom with two objects in view—first, as a guard against taking corrosive and injurious substances; and, secondly, to secure pleasure during the first stages of the important process of taking food. Although the sense of taste may be injuriously indulged, and thus abused, it has no doubt been furnished to man and the animal kingdom as a source of enjoyment. Temperately exercised, its use may be made a source of gratitude to the Creator; whilst abused, there are few indulgencies for which man has to suffer more painfully.

**TAXIS** (Greek *tasso*, to put in order). The act of reducing a rupture by the hand.

**TEA.** The plant which produces this well-known beverage is the *Thea Viridis*, of the natural order *Theaceæ*, a native of



southern climes. It is a shrub from three to six feet high, and grows best at the sides, and at the feet of mountains, and in valleys with a southern aspect; the different kinds

of or preparation, or of the same species. Tea has slightly stimulant and astringent properties, for which, besides its use as a daily beverage, it is sometimes given medicinally. The portion of tannin which it contains renders it useful as a gargle or injection.

"There is probably no substance," says Dr. Thompson, "not strictly medicinal, which exerts so powerful an influence upon the nervous system as Tea, especially the Green variety, of which many individuals cannot take even the smallest quantity without experiencing the most disagreeable effects; they become faint, the action of the nervous system is disturbed, the hand trembles, the heart palpitates, sometimes gastric spasm is induced, but more generally a feeling of raking the stomach, and of extreme hunger shortly after a full meal; lastly, there is extreme wakefulness. There are some persons upon whom green Tea produces the same effect as digitalis, and it has been medicinally employed in the diseases for which that herb has so deservedly obtained a high reputation. Desbois, of Rochefort has, by the use of it, cured many nervous diseases which have arisen from accelerated circulation. Dr. Percival had an idea that green Tea possessed nearly the same power as Digitalis of controlling and abating the action of the heart. It is upon the nervous system that the effects of Tea are chiefly manifested; green Tea especially is distinguished by this property. It is said that a strong solution of it, applied to the sciatic nerve for half an hour, has caused death. Introduced in only a small quantity beneath the abdominal integuments of a frog, it produced complete paralysis of its hind legs, lasting for some hours. Administered as an injection to a dog, it caused a perfect paralysis of the bladder and intestinal sphincters, a partial loss of power in the hind legs, and a total loss in the tail. A poultice of green Tea leaves applied over the human stomach has caused sickness and vomiting; over the abdomen, colicky pains and purgings; over the heart, faintness and irregularity of pulsation; over the kidneys, diuresis." Were it requisite here, many more instances of the poisonous effects of this herb might be cited. True, these are chiefly the results of green Tea, but, on some, black Tea will produce nearly the same symptoms. Where individuals have any tendency to dyspeptic affections, they are very apt to be aggravated by the use of Tea, which occasions severe gastralgia;

man, they are frequently caused solely by enforcing the disuse of the beverage, which, indeed, ought to be done in all such cases.

Mr. Corfe, in his lectures on the "Physiognomy of Diseases," mentions a case very closely imitating cancer of the stomach, which completely and rapidly recovered as soon as the Tea was given up; and in the *Lancet* many cases are recorded to the same effect. The action of Tea in exciting mental phenomena is equally remarkable with its influence upon the body. Most students are familiar with its power of clearing the mind, and facilitating its working; many, too, have experienced its baneful effect in preventing sleep and occasioning mental irritability. At times, however, the disorder of the faculties of the mind under the influence of strong Tea, amounts nearly to insanity. Millingen says of it—"In some it is highly stimulating and exhilarating; in others its effects are oppression and lowness of spirits; and I have known a person who could never indulge in this beverage without experiencing a disposition to commit suicide."

Notwithstanding all this, however, and the known fact that the use of strong Tea has in many cases produced hyponchondriasis, and deranged the nervous system, yet we are inclined to believe that its regular and moderate use will, in the great majority of cases, prove beneficial—supplying the necessary stimulus to the flagging powers, and reviving and freshening all the powers of the mind, without detriment to those of the body. But then this, be it observed, is its moderate use, not its immoderate abuse; like all other stimulants, it requires to be taken with due caution. Very strong Tea, like alcoholic drink, is mischievous, although not in such a high degree as *Spirits, Beer, &c.* (which see). Not more than two cups, only moderately strong, should be taken at the morning and evening meals; this quantity is enough, but not too much, for health. It is then, indeed, under these circumstances—

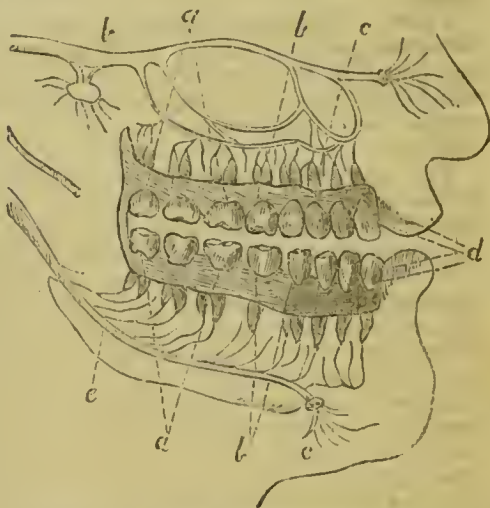
"The cup that cheers but not inebriates."

See *Adulterations*.

**TEARS.** The peculiar secretion which lubricates the eye; it consists of water, mucus, muriate and phosphate of soda, and phosphate of lime. One of the most curious and interesting phenomena connected with our organization, is the influence exercised by purely mental emotion on the flow of tears; it would seem that some amount of intelligent emotion is really necessary to produce this effect; children,

*Lacryma.*

**TEETH.** True bony teeth are found only in the higher or vertebrated animals, and of these only the highest class—the mammalia, at the head of which is man, have them in single rows in each jaw. The human adult has these rows arched, and sixteen Teeth in each row: they are of three kinds, as represented in the following diagram:—



First we have the large Teeth behind, with broad flat surfaces, which, on account of their functions, are called *Grinders* (a); they are sometimes termed *Molar Teeth*, or *Molares*. Altogether they are twelve in number, being three on each side of both upper and lower jaw; the last of them are called *Wisdom Teeth* in man, from the fact that they do not appear until he is supposed to have attained years of discretion, viz., from the 18th to the 30th years of his age. Next to these, on each side of both jaws, are two Teeth whose surfaces are less broad, and which, having two sharp projections on each, are termed *Bicuspids* (two-pointed) (b). The sixth Tooth on each side is the *Eye Tooth* (c); it has but one point or projection, hence these Teeth have been called *Cuspidata* (pointed). From its large development in dogs, this has been called the *Canine Tooth*. Between these last on each side, coming in front of the mouth, we have four Teeth which have neither the broad surface of the grinders, nor the point of the *cuspidata*; but they are flat, having a sharp edge like a knife; hence they have been called *Incisors*, or *Cutting Teeth* (d).

The following cut exhibits more clearly





These three sorts of Teeth, which we may call grinders, tearers, and cutters, represent three classes of Teeth among the lower animals; that man has them all we may take as an evidence that he is intended to be an omnivorous feeder.

Although the Teeth form so prominent and distinguishing a feature of all the full-grown individuals of the higher forms of animals, yet most of these animals, including man, are born without any Teeth at all. When the child is born, the jaw is covered with gums, but underneath the gums are little cavities in which the Teeth are formed; and as they go on growing, they at last press upon the gum, and causing it to absorb, finally break through it. This process is called *dentition*. It is frequently a source of disordered health to children, especially if anything occurs to prevent the absorption and ready yielding of the gum to the pressure of the tooth below. The absence of Teeth during the period of human infancy evidently indicates that the food required at that period does not need their employment. It is a well-known fact, that the food of the infant is its mother's milk; but it is too often forgotten that, till Teeth are developed, Nature does not intend the child to take food that requires preparation by Teeth in order to its digestion. The practice of feeding young children with solid food, is the cause of great destruction of life; and even sops should only be sparingly administered, in cases of necessity, till the first Teeth have appeared.

From what we have before said, it will be seen that in the adult man there are thirty-two Teeth, but if we examine the jaw of a child after it has "cut" all its Teeth, and before it is six years old, we shall find that it has but twenty. Nor are these Teeth increased in number by the addition of others; but whilst this first set of Teeth are performing their duties, an entirely new set is growing underneath them, in precisely the same way as they did at first. Gradually the fangs of the first set of Teeth are absorbed, in consequence of the pressure of

others. The order in which the Teeth appear—as well as the time—is subject to considerable deviations, but the following periods will be found to be about the time.

#### *First, or Milk Teeth.*

2 lower middle incisors,	4th to 8th mth.
2 upper ditto,	4th to 8th "
4 lateral incisors,	7th to 11th "
4 anterior, or 1st molars,	12th to 18th "
4 eye, or canine teeth,	16th to 22nd "
4 back molars,	19th to 38th "

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20

In some children, the whole of the Teeth may be cut by the end of the third year, whilst, in others, the process of dentition may be prolonged to the fifth year.

#### *Order of appearance of the permanent Teeth.*

4 first molars, one on each of the two sides of the two jaws,	6th to 7th year.
4 middle incisors, two in each jaw,	7th to 8th year.
4 lateral incisors, a little later than the last,	7th to 8th year.
4 first bicuspsids,	8th to 9th year.
4 last bicuspsids,	10th to 12th year.
4 eye, or canine Teeth,	11th to 13th year.
4 second molars,	12th to 14th year.
4 back molars, or wisdom Teeth,	18th to 30th year.

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32

The internal structure of the Teeth is very complicated, and has recently formed the subject of very profound research amongst the anatomists and physiologists of Europe. The minute structure is found to be no less indicative of the species of animal to which it belongs, than the whole tooth itself; so that with regard to the Teeth we may say, that a morsel so small as not to be distinguished with the naked eye, should yet enable the skilful anatomist to judge of the form of the whole tooth, and thence to infer the particular kind of animal to which it belonged. We cannot go into details of the dental structure of the lower animals, but all that possess true Teeth exhibit the same facts as we find in man. If we make a vertical section of a tooth with a fine saw, and after having polished it on a hard and smooth whetstone, submit it to an examination under the microscope, we shall



parts indicated in the cut. We shall discover that there are three very distinct portions. First, the enamel (in cut *a*), which covers the whole of the external part of the Tooth; second, the dentine (*b*)—this substance, which is so largely developed in the tusks of the elephant and other pachydermatous animals, constitutes ivory; third, the cement (*c*) or bone, forming the external covering or facing of the Tooth. In the middle of the Tooth (*d*) is the pulp cavity. Into this cavity the

nerves and blood-vessels of the Tooth penetrate, and thus serve to maintain the living connexion between the Tooth and the rest of the body. The distribution of the nerve in this cavity will serve to explain how it is that by the removal of a decayed part, and stopping it with some kind of cement, that access to the air is prevented, and the danger of further decay removed.

Each hard part of the Tooth is differently formed. The enamel is by far the hardest of these structures, and is composed of dense semi-transparent fibres, placed side by side, and so small, that they do not measure more than  $\frac{1}{2000}$  part of an inch in diameter. These little fibres penetrate the dentine beneath. This substance is composed of two parts, viz., a number of very minute tubes anastomosing with each other, and an intertubular tissue. The tubes commence in the pulp-cavity, and pass on to the outside of the tooth. The intertubular substance is composed of very minute white granules or globules. The cement which covers the outside of the fang, has a structure precisely like that of ordinary bone.

The Teeth are inserted in, or rather, developed out of, the upper and lower jaws. The upper jaw is fixed, but the lower jaw has two round projections, which are inserted into cavities in the skull, in which they move with great facility. This movement is different in different animals. In

fibres, as it exists in the leaves and branches of plants, the jaw admits of a lateral motion, and the trituration and reduction of this kind of food is thus ensured. On the other hand, in animals which partake of food that requires no bruising before it is carried into the stomach, this lateral movement would be of no use; hence in the carnivora we find this action of the jaw confined to a simple up-and-down movement, by which the food is merely divided or cut into smaller pieces. When we examine the jaw of the human being, we find that it has a combination of these two movements—that it combines the rotatory action of the ruminant, with the up-and-down movement of the carnivora.

In the course of this work we have had to speak more particularly of the nature of the food of man; but we would here point out, that in the structure of the jaws and Teeth, we find a clear indication that he is adapted for taking food from both the vegetable and the animal kingdom, seeing that in the organs which prepare the food for digestion, we find instruments adapted for the preparation of both forms of diet. This is but one of many arguments that may be brought against the advocates of an entire animal, or vegetable diet; and had we not such abundant proof in the structure of man, we might appeal to his instincts, which, under all natural circumstances, have dictated to him a mixed diet as that which is most desirable for his sustenance.

Having said thus much with regard to the Teeth, we conclude with a few directions as to their use, and the keeping them in integrity. In the first place, then, it is evident that the Teeth of men are only adapted for dividing and tritulating flesh and vegetables; and the delicacy of their structure would seem to indicate that even these forms of food should be cooked. The Teeth of man neither possess the sharpness and strength of those of the lion, nor the broad surface of those of the ox or the elephant. The attempt to masticate hard substances—to crack nuts, or in any other manner to strain the strength of the Teeth and jaws—is injurious; and many persons have to regret all their lives foolish practices of this kind.

In the next place, the Teeth should be regular. The want of harmony between the upper and lower Teeth is sometimes so great that the food is only imperfectly masticated. In the lower animals, occasionally, one Tooth is lost, when its opponent grows



and sometimes the Teeth, from this cause grow so long, as to penetrate the parts of the face beyond the jaw.

The irregularity of Teeth produces an accumulation of tartar at their base, which causes an absorption of the gum, and eventually the Tooth drops out without decay. These irregularities arise from inattention to the Teeth, during second dentition; but if proper care is taken at that period, all undue growth may be guarded against.

The Teeth should be kept clean. There are two sources of impurity to the Teeth. The first is from a deposit of tartar upon them near the gum; and the second is from portions of food adhering to them after meals. The accumulation of tartar is a frequent source of disease in the Teeth and gums, and precautions should be taken to prevent its adherence to them. The best plan is that of cleaning them with the brush night and morning. Dentifrices are frequently employed, and, perhaps, when simple, they are of service. All chemical products, however, should be avoided. Anything which acts chemically upon the Tooth will open the way to speedy decay. The simplest dentrifice, and one of the best, is a mixture of prepared Chalk and well-powdered Camphor. The chalk acts as a scouring material, whilst the camphor stimulates the gums, and counteracts the decomposition of any small particles of food that may lurk amongst the Teeth. The purer the water that is employed for washing the Teeth the better.

To cleanse away portions of food adhering to the Teeth, the toothpick should be used. Metallic toothpicks are objectionable; those made of bone or quills are to be preferred.

When Teeth are found to be decayed, immediate attention should be paid to them. They more frequently indicate serious derangement of the health than is imagined. Where Teeth are already decayed, they can not be restored to their pristine integrity, but the decayed part may be removed, or the whole Tooth may be extracted. The sooner this is done the better; for decay has an undoubted tendency to spread, and nothing is so disagreeable to other people as the breath of a person tainted with the faint odour of decomposing Teeth.

Decay of the Teeth frequently comes on from long-continued indigestion, from exposure to cold, from a serofulous habit of body, from eating and drinking very hot or very cold articles of diet. Now, in all diseases, prevention is better than cure.

states of the system, and those causes which are known to be favourable to the production of decayed Teeth. See *Toothache*, &c.

TEGUMENT (Latin *tego*, to cover). A covering of the body, as the cuticle. See *Skin*.

TELA (Latin for a web of cloth); hence it is applied to the cellular membrane, from its likeness to a web. Spider's Web used as a styptic, and sometimes given in intermittent fevers, is called *Tela araneorum*. See *Cobweb*.

TEMPER. This is the disposition or constitution of the mind, particularly with regard to the passions and affections; thus we say a calm, hasty, or fretful Temper: how much it contributes to make or mar the happiness of man we are all fully aware, but its effect upon the bodily health is not perhaps so open to observation, although the medical man frequently has occasion to notice, and allow for it, in his diagnosis of disease. The patient of a calm contented disposition is much more easy to treat than one who is fretful and irritable, giving way frequently to gusts of passion and fits of impatience; and very often the cure of a malady is greatly retarded, if not rendered altogether impossible, by want of control over the Temper.

TEMPERAMENT. In physiology this has been defined as a peculiar organization of the system common to several individuals, which to a certain extent influences the thoughts and actions. There is besides in each individual a further peculiarity of organization which serves to distinguish his Temperament from that of another person, to whom, however, he may in other respects bear a great resemblance. This individual Temperament is called *Idiosyncrasy* (which see.) Four Temperaments were distinguished by the old physicians, founded on the notion of four qualities, which entered into the constitution of man, and were supposed to *temper* each other, and influence the character, according as one or other prevailed over the rest. These qualities were in the abstract, hot, cold, dry, moist; in the concrete, fire, air, earth, and water; and their highest point of development was—1st, The *Sanguine*, or *Sanguineous Temperament*, supposed to be characterised by a full habit, soft skin, ruddy complexion, blue eyes, red or auburn hair, frequent pulse, large veins, and vivid sensations. 2nd, The *Atrabilious*, or *Melancholic Temperament*, described as existing in a thinner but firmer frame than the preceding, with a dark complexion, black hair, and a slower

calulation, a nervous system less easily moved, and a character grave and meditative. 3rd, The *Bilious*, or *Choleric Temperament*, intermediate between the two preceding, marked by black curling hair, dark eyes, a swarthy, and at the same time ruddy complexion, a thick rough hairy skin, and a strong full pulse. 4th, The *Phlegmatic*, or *Pituitous Temperament*; this differs from all the rest in the laxity of the skin, the lighter colour of the hair, and the greater sluggishness of the faculties. Without keeping to the old theory, modern physiologists to a certain extent adopt these terms, to which they have added a 5th, The *Nervous Temperament*, marked by a combination of some of the above characteristics, with a quick and brilliant intellect, and great susceptibility.

Not often do these temperaments occur in a pure form; we meet with the indications of two, or even three, of them mingled in one person; whom, therefore, we must call nervous-sanguine, or nervous-bilious-sanguine, as the case may be.

Viewing Temperament as a predisposing cause of disease, we may say that sanguine persons are more liable to acute inflammation than others; nervous, to mental disorders and affections of the nerves; phlegmatic, to scrofula; phlegmatico-sanguine, to gout; and bilious, to hypochondria, and disorders of the digestive organs. (See *Predisposition*.)

**TEMPERANCE.** Very commonly this term is applied to abstinence from stimulating drinks, or to the moderate use of them; this, however, is a too restricted meaning. It behoves us to be temperate in all things, eating as well as drinking; one may be intemperate without ever getting what is well called "the worse for liquor;" and all the sensuous pleasures of life may be taken so freely as to weaken the system, and induce organic disease. Few persons live temperately enough, therefore comparatively few enjoy perfect health. Frugal meals, regular exercise, an avoidance of excitement, and unnecessary fatigue, these are the rules for a temperate liver, and such an one is likely to live a long life, and go down to his grave untroubled by bodily ailments. To "the temperance movement," as it is called, we, of course, wish all possible success. Morally and physically, in every way, teetotalism, is better than drunkenness, but due moderation is better still. Let us enjoy the gifts of a good Providence moderately and temperately, but if we cannot refrain our appetites, it is best to avoid the pleasures which are a snare to us. See *Alcohol, Ale and Beer, Stimulants, &c.*

**TEMPERATURE** (Latin *tempero*, to mix various things in due proportion). The comparative degree of active heat accumulated in a body as measured by an instrument, or by its effects on other bodies. See *Caloric, Heat, Thermometer*.

**TEMPLES** (Latin *tempora*, plural of *tempus*.) Literally the fall of the head, the part where it slopes from the top; its anterior and lateral portions, where the skull is covered with the temporal muscles, one of which, called the *temporalis*, arising from the temporal fossa, and inserted into the upper part of the earoid process of the lower jaw, draws it upwards. One of the arteries which lies nearest to the surface, and is therefore most convenient for opening, as well as most liable to accident, is the temporal artery, the exact position of which we have already described. See *Arteries*.

*Pain and Throbbing in the Temples* is generally indicative of a disordered stomach, arising from biliary derangements; (see *Headache*). Sometimes it is nervous, and requires the treatment recommended under *Neuralgia*. See also *Hemierania*.

**TENDONS** (Greek *teino*, to stretch). These are fibrous cords at the extremities of the muscles, attaching them to the bones, whose various movements are affected by them; they are strong and elastic, but are liable to be ruptured, or severed by a cut. An accident of this kind is indicated by loss of power in the limb. See *Muscles, Strains, and Achilles's Tendo*.

**TENESMUS** (Greek *teino*, to strain). Powerful and frequent straining at the rectum in efforts to empty the bowels, followed by discharge of mucus only. It is not infrequent in *Diarrhoea* and *Dysentery*, especially the latter, of which it is one of the most distressing symptoms. See those diseases.

**TENSOR** (Latin *tendo*, to stretch). Applied to a muscle which stretches any part, *T. vaginae femoris*, which arises from the spine of the ilium, and is inserted into the *fascia lata*, whence it is also called *fascialis*; it stretches the fascia.

**TENT.** A roll of lint inserted into abscesses, sinuses of discharging wounds, ulcers, &c., to keep them open. See *Abscess, Wounds, &c.*

**TENTACULUM.** Latin for a slender hook used by surgeons for securing the bleeding



artery, until the severed end can be properly tied. This should form part of an emigrant's



up in a handle.

**TENTORIUM** (Latin *tendo*). A tent, or pavilion; hence the membranous partition which separates the cerebrum from the cerebellum is called *Tentorium cerebelli*, which is in a constant state of tension.

**TEREBELLA** (Latin diminutive of *terebra*, a perforating instrument). A trephine used for sawing out circular pieces of the skull, in the operation of *Trepanning*, (which see).

**TERES**. The name of two muscles, *T. major* and *T. minor*, which arise in the scapula, and are inserted into the humerus. They move the arm in various directions.

**TERRA** (Latin for earth). Applied to earth, as distinguished from minerals, metals, and precious stones: thus we have *T. dammata*, or *mortua*, condemned, or dead earth, the residue of some distillations, synonymous with *Caput Mortuum*; *T. foliata tartari*, Foliated Earth of Tartar, an old name for Acetate of Potash; *T. japonica*, Japan Earth, or *Catechu* (which see); *T. marita*, a name sometimes given to *Cureuma*, or *Turmeric* root (which see); *T. ponderosa*, Heavy Earth, or *Barytes* (which see); the Muriate is called *T. ponderosa salita*; *T. sigillata*, Sealed Earth; little cakes of solar earth stamped with impressions; formerly used as absorbents, &c.

**TERTIUM SAL** (Latin for third salts). Applied to a neutral salt, so named from its constituting a third body, differing from the acid and alkali which compose it. See *Salts*.

**TERTIAN** (Latin *tertius*, three). An intermittent fever which comes on every third day, the intermissions lasting 48 hours, and the paroxysms generally commencing at noon and continuing under 12 hours. See *Ague*.

**TEST** (Latin *testes*, a witness). A substance which being added to another, tests or distinguishes its chemical nature or composition. Chemical re-agents are often used to test the purity of medicinal, or other preparations, or articles of every day consumption, and to detect the presence of poison where it may be suspected; under the heads of *Milk*, *Vinegar*, &c. we mentioned some of these, and gave directions for their use. See also *Poisons*.

**TESTA** (Latin for a shell). Hence we have *Testæ præparata*, prepared shells, being those of the oyster; well cleaned with boiling water, and then treated as in the preparation of chalk. This preparation is anti-acid, but possesses no advantage over the Prepared Chalk, (which see).

designations of two glandular bodies, called *didymi*, situated in the scrotum; they belong to the male organs of generation, and are liable to various painful affections. When inflamed and swollen they require the treatment of inflammation generally, such as leeching, fomentation, and poultices, with Calomel for constitutional treatment, and Dover's Powder, with active aperients. The patient should have perfect rest and low diet; should rest be impossible, the Testicle, or the two (if both are implicated) should be supported by means of a silk handkerchief, bag, or suspensory bandage. Enlarged Testicle is sometimes a consequence of *Hydrocele* (which see), and also of *Rupture* (which see). Many persons have it without suffering much pain or inconvenience. It is always best to call in a medical man's advice in such a case; a non-professional person can never tell the cause, and serious mischief may be the result of neglect or wrong treatment.

Of the *Tubercula quadragermina* of the brain, the two upper are called the *nates*, the two lower the *testes*.

**TESTUDO**. Literally, a shell-crab, or tortoise. A term under which Vogel has described a species of wen or cyst, containing a fluid which hardens into horn or nail.

**TETANUS** (Latin *teino*, to stretch). Contraction of the muscles of voluntary motion, attended with tension and rigidity of the parts affected. There are five distinct forms of this affection, viz.:—1st, *Trismus*, in which the effects are confined to the muscles of the jaw or throat, this is, generally, called *Locked Jaw* (which see); 2nd, *Tetanus*, in which the body is affected and becomes rigid, but retains its ordinary straightness; 3rd, *Emprosthotonus*, which is characterized by the body being bent forward, owing to contraction of the flexor muscles; 4th, *Opisthotonus*, in which the muscles of the back are chiefly affected, the contraction being in the extensor muscles; 5th, *Pleurosthotonus*, in which the body is drawn on one side; Sauvages termed this *Tetanus lateralis*, it has also been called *Catochus*, or *Catalepsy*, (which see).

Tetanus has also been distinguished as *Acute*, *Chronic*, *Traumatic*, and *Idiopathic*, the first and second terms being applied according to its intensity, the third to those cases arising from wounds, and the last from other causes. See *Lock-jaw*.

**TETTER** (a corruption from the French *dartre*, or the Greek *dartos*). This term is often used synonymously with *scall*, but the affection to which it is applied is properly a

kind of *Herpes* (which see and *Skin disease*.)

**THALAMUS** (Greek *thalamos*, a bed). A term applied to a part of the brain from which the optic nerve arises.

**THECA** (Greek *theo*, to shut up). A case or sheath. Hence the spinal canal is sometimes called *Theca vertebralis*.

**TIMINE**. The active principle of *Tea* (which see).

**THENAR** (Greek for the palm of the hand). Applied to a muscle extending to the thumb. See *Hand*.

**THEOBROMINE**. The active principle of *Cocoa* (which see).

**THERAPEUTICS** (Greek *therapeuo*, to heal). That branch of medical science which relates to the treatment of diseases: *Pathology* is that which investigates their nature, and *Pharmacy* that which prescribes the methods of preparing the proper remedies. (See these heads,) also *Physician*, *Pharmacopœia*.

**THERMÉ** (Greek *therme*, heat). Warm baths or springs. See *Baths*, *Mineral Waters*.

**THERMOMETER** (Greek *therma*, heat, and *metron*, a measure). An instrument for determining the degree of active heat existing in the atmosphere or other bodies; there are several kinds, but the one generally used is *Fahrenheit's*, of which a cut and description is given under *Heat* (vol. I. p. 370).

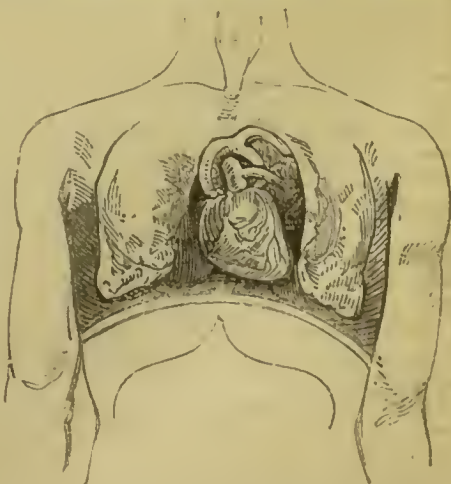
Dr. Marshall Hall has proposed a Thermometer for ascertaining minute differences of temperature: a fine tube is blown into a bulb of ten times, for example, the usual size; each 10th of a degree is then equal to a whole degree on the ordinary scale; the upper part of the tube is also blown into a bulb, forming a reservoir, and this is turned at a right angle with the tube, and contains a little mercury. The mercury in the tube is made to communicate with that in the upper bulb; the instrument is then to be brought to a given temperature by being placed in water. The connection of the mercury in the tube with that in the reservoir is to be broken; the Thermometer is then to be prepared for measuring the 10ths of a degree from that temperature downwards. (See *Atmosphere*, *Heat*, *Temperature*). A *Thermoscope* is the name of a particular kind of Thermometer which shows or exhibits the changes of heat to the eye; and a *Thermostat* is a self acting apparatus for regulating temperature, constructed on the principle of the unequal expansiveness of metals.

**THIGH**. The part of the body so-called, extends from the hip to the knee; the

longest bones in the human *Skeleton* (which see) are those of the Thighs, which incline inward at the knees; in consequence of the greater width of the pelvic bones, this inclination is especially marked in the female. Besides these bones, a mass of fleshy muscles forms the substance of this part; at the junction of the Thigh with the trunk, is the groin, the usual seat of *Ruptures* (which see). Wounds in this part are especially dangerous, from the close proximity of the main artery which, immediately below the groin, becomes imbedded in the muscles, and thence passes round the inner side of the Thigh-bone to the ham. See *Leg*.

**THIRST**. This is the sensation which makes known the necessity which has arisen for the use of diluents; it is perceived in the mouth and throat chiefly, and this is evidently a sympathetic feeling, for no application of moisture to those parts will allay it, unless a supply of fluid be made to the whole system. The sensation of Thirst in hot countries, in those who suffer under a long deprivation, is described as one which if not relieved, becomes quite unendurable, leading to madness.

**THORAX** (Greek for the chest). That part of the body which contains the heart, lungs, and larger of the blood vessels; it is separated from the *Abdomen* (which see) by the diaphragm; up the back of it passes the spine, in front is the sternum or breast bone, and on either side it is bounded and guarded by the ribs; enclosing, as it does, the great organs of circulation and respira-



tion, and the main arterial and venous channels, this is one of the most important cavities of the body; with regard to its ex-



act position, very erroneous ideas are often entertained, a pain in the pit of the stomach being frequently referred to the chest. The foregoing diagram will serve to show how far down the thoracic region really extends.

This will also serve to illustrate our foregoing remarks upon the folly of tight-lacing, &c., by which the lower part of the chest is compressed, and the viscera contained therein prevented, for want of space, from a due performance of their functions.

Narrow chested persons are, it is well known, predisposed to pulmonary complaints, and every possible means should be taken when young to expand this part of the frame; on this subject some remarks will be found under *Exercise*. Also with regard to the examination of the chest by sounding (see *Auscultation, Stethoscope*); and for the diseases to which the chest is liable (see *Consumption, Heart, Lungs*).

THORACIC DUCT is the great trunk formed by the junction of the absorbent vessels; it is about 18 or 20 inches in length, and near its origin, in the abdomen, as large as a goose-quill, but as it ascends it diminishes in size. See *Chest, Thorax*.

THROAT. This is a term of somewhat uncertain derivation, although it is generally ascribed to the Saxon *throta*, and, as popularly understood, of somewhat indefinite meaning, for few can tell where the Throat begins and ends, or what organs it includes; it is generally understood to mean that part of the human frame in which are the passages for food and breath, viz.—the *Gullet* and *Windpipe*, (which see); or all that hollow cavity which may be looked into when the mouth is wide open. What it really means, a reference to the diagram at page 198, Vol. II., under the head *Pharynx*, will show; by this term and *Fauces*, anatomists generally refer to the Throat, whose particular parts and affections we have spoken of under the heads *Alimentary Canal, Croup, Glottis, and Epiglottis, Quinsy, Sore Throat, Tonsils, Uvula*, and the heads above italicised. We shall now confine our attention to a Throat disease of a very fatal and alarming character, which it may be thought by some of our readers we have inadvertently omitted to notice in its proper place. They would naturally look for it under the head *Diphtheria*, but let us say in explanation, that a work like this, of great labour and research, takes a considerable time to write, and when the subjects arranged under letter D were written, this now too well known and dreaded disease was quite unknown in Eng-

land, and but little elsewhere. Even now its true character is a matter of great doubt, and, until that can be settled, there is little hope that a rational and generally successful mode of treatment can be adopted. To prove, however, that we had not lost sight of a disease which has attained a fatal notoriety, we may refer our readers to the head *Herpes Malignum*, a scientific name proposed for *Diphtheria* by a writer on the disease, who appeared to understand its nature as well as, if not better than, any of the numerous medical men who have been lately called on to treat it. To the remarks made, and the directions given under the above head, we can add but little, for although all kinds of remedies have been proposed, and have had their measure of success, yet we cannot find that any plan of treatment has been more successful than the one there laid down. All writers agree that the main characteristic of this disease is the formation of a false pellicular membrane, the origin of which is somewhat obscure; it attacks the tonsils, part of the tongue, the pharynx, the epiglottis, the larynx, and the trachea; causing suffocation by stopping the air passages. It has occurred in localities where so malignant and fatal a form of disease could scarcely have been looked for; where the surrounding country was open and beautiful, and the soil dry, and the persons attacked were not among the most wretched and ill fed. Its character is peculiarly treacherous and insidious, being first so slight as to be scarcely noticeable. By the time medical advice is sought, the pellicular exudation has reached the air passages, and death shortly ensues—often by syncope, when the case appears to be progressing favourably. Hitherto, medical measures have been attended with but little success; the best is unquestionably the application of strong caustics to the throat at the earliest possible period: hydrochloric acid is recommended; this appears to stop the progress of the false membrane; but when this has reached the trachea, and bronchi, there is little hope for the patient. It is believed by some, that this disease is to the respiratory membrane what thrush is to the intestinal, having a confervid origin, and that the effect of the poison, when absorbed, is, in its elimination, to set up an æsthenic inflammation, like croup. Hence, the employment of counter irritation, Leeches to the trachea, Chlorine gargles, with the administration of Port Wine, Quinine, and Chlorate of Potash, would seem to be the most rational mode of treatment. Some

advocate the employment of emetics, and some of tracheotomy.

According to Mr. McDonald, who appears to have had considerable experience in Diphtheria, the best line of action is as follows:—"After a clearance of the bowels with Calomel and Rhubarb, I order strong Beef Tea, Wine, and, above all, Bass's Pale Ale; the patients express themselves much relieved in the throat as it is swallowed, and feel greatly exhilarated after taking it. The medicine I find of most use is an ounce of the Compound Tincture of Quinine, taken in wine and water every four hours. As a local application (and it is by the personal inspection of the throat, and the personal use of the applications, that we may hope to benefit the sufferer), I find the best and most efficacious is equal parts of Honey and concentrated Muriatic Acid, applied with a probang to the whole of the false membrane, about every sixth hour. As a gargle, Borax and Honey, mixed with a little Brandy and Water, is very useful; and after the stripping off of the false membranes, a gargle made with Tannic Acid and Water affords great comfort."

M. Loisseau, well known in Paris, for his successful treatment of Croup by topical remedies, urges his professional brethren not to use debilitating means in the treatment of Diphtheria, but to put their trust in topical and styptic measures; he states, "that out of a large number of patients treated altogether according to his system, only two died; while more than half of those whom he attended after they had been treated with emetics and alterants, perished, and the greater part of those who recovered suffered subsequently from œdema, anasarca, and paralysis, or had to go through a protracted convalescence." We might however, go on quoting opinions, and many of them opposed to each other, until we had filled our volume; the treatment above prescribed, appears to us the most rational; that it is not always, nor even, perhaps, generally successful, we must admit. The numerous cases which terminate fatally, sufficiently prove this; but this is to be attributed to the rapid progress and malignant nature of the disease, than to want of skill in those who grapple with it; until more accurate knowledge of the causes and origin of the morbid growth in the Throat is obtained, no well-directed preventive measures can be taken; when the disease once shows itself, it is often too late for curative skill.

**THROMBUS** (Greek for coagulated blood), applied to a clot of blood, also to a tumour, formed by a collection of extravasated blood

under the integuments, after bleeding. When not considerable, it is generally termed *Echymosis*, (which see).

**THRUSH.** This disease, called in scientific language *Aphtha*, is common with infants who are fed improperly, or upon artificial food; it consists of an eruption of small white or ash coloured ulcers, on the inside of the mouth and edges of the lips, not unfrequently extending to the throat and fauces; it is caused by irritation of the bowels, and generally gives rise to excoriations about the anus and nates. When these symptoms appear, nurses say it is "going through" the child, and indicate a speedy termination of the disease. Under ordinary circumstances, and if sufficient attention be paid to it, Thrush is not a dangerous affection; but if neglected, and sometimes if not, it assumes a gangrenous character, the ulcers increase in size and become livid; it is then much to be feared.

**Treatment.** As this disease is nearly always attended with diarrhœa, some anti-acid and astringent mixture should be given, after, perhaps, one dose of Rhubarb and Magnesia; the Compound Chalk Mixture of the Pharmacopœia, with a few drops of Laudanum should the irritation be very great. To the eruptions of the mouth should be applied, with a camel hair brush, a little Honey and Borax, in the proportion of 6 drachms of the former to 2 of the latter; or, in aggravated cases, a lotion composed of Nitrate of Silver, 1 scruple dissolved in 1 ounce of Water. Dust over the excoriated nates and anus with Hair Powder, or dap them with Goulard Water, two or three times a day. If the child is at the breast, great attention should be paid to the diet of the nurse; if not, the food must be at once simple and nutritious, milk forming the chief part of it: if the disease assumes a gangrenous character, there will be great exhaustion, and Beef Tea and Tonics will be required; for young children something like this:—Dilute Nitric Acid, 1½ minims; Syrup of Orange Peel, ½ an ounce; Infusion of Calumba, 1 drachm; Water, 3 ounces; take a dessert spoonful twice or three times a day.

For adults, who are sometimes affected with Thrush, as a consequence of taking food that is indigestible, or that does not agree with them, an active aperient is first necessary; an application of Borax and Honey for the mouth, and if this is not effectual, a wash of Nitrate of Silver, as above directed, or of Nitric Acid and Water, ½ a drachm of the former to 4 ounces of the latter. Thrush sometimes appears among



the sequelae of other diseases, and in this case, may be looked on as evidence of weakness; shewing that the patient requires a generous diet, with tonics, a change of air, &c.

**THYMOSIS** is a name given by Swediaur to *Frambesia* or *Yaws* (which see).

**THYMUS** (Greek for a kind of onion, or a blister on the flesh). A gland situated in the thorax of the fetus, has been so called; a trace of this remains during youth, but in old age it usually disappears entirely.

**THYROID** (Greek *thyreos*, a shield). The shield-like cartilage of the larynx; hence the names of the following muscles:—*Thyro-arytenoideus*, *T. epiglottideus*, and *T. hyoideus*, which assist in the movements of the *Glottis*, *Epiglottis*, and *Larynx* (all of which see). *Thyrophraxia* is a term which has been applied to *Goutte* (which see).

**TIBIA** (literally a flute or pipe). The great bone of the leg, commonly called the shin bone; the above name was given to it from its resemblance to a pipe, the upper part representing the expanded or trumpet-like end, and the lower part representing the flute end of the pipe. See *Leg*.

**TIC DOLOREUX** (French *tic*, spasm, and Latin *dolor*, pain). This is a painful affection of the nerves of the face, coming on in sudden and excruciating attacks. Its characters are acute pain and convulsive twitchings of the muscles, which continue from a few minutes to several hours. It affects chiefly the fifth pair of nerves, or the nerves of sensation, although it sometimes attacks those of expression—the seventh pair, in which latter case the face of the patient is spasmodically drawn on one side, sometimes without pain. Tic Dolo-reux usually affects persons whose digestive organs are deranged; sometimes it is connected with rheumatism, or with a malarious condition of the atmosphere. Sometimes a carious bone will produce it, and frequently it arises from decayed teeth.

Abernethy used to say that in these cases there were “two functions wrong—those of the nervous system on one hand, those of the digestive on the other. You must seek to put the digestive organs right, or to soothe the nervous system, according as the one may seem to be the principal cause of the disease.” When it arises from imperfect digestion, in which case there is costiveness, loss of appetite, and furred tongue, active aperients must be given, so as to open the bowels freely. Colocynth and Galbanum Pills,  $\frac{1}{2}$  a drachm of each, divided into 12 pills, two to be taken every night

until the desired effect is produced. If there is acidity of the stomach, in which case there will be acid eructations and a sour taste in the month, give Carbonate of Soda, 10 grains in Water, with  $\frac{1}{2}$  a drachm of Tincture of Ginger. When the work of digestion is properly performed, give Carbonate of Iron in  $\frac{1}{2}$  drachm doses, mixed with Honey or Treacle, three times a day with a couple of the Opening Pills occasionally. If the affection assumes the character of an intermittent, give Quinine as in ague. Poppy Fomentations will sometimes afford relief to the excruciating pain, or a Liniment made thus, rubbed into the face: Extract of Aconite 1 scruple, Soap and Camphor Liniment, of each 1 ounce. If ease and rest can only be obtained by narcotics, Belladonna will be found the most effectual; 1 grain of the Extract should be taken when the paroxysm is coming on, and repeated every two or three hours until relief is effected. See *Neuralgia*.

**TICK BITE.** Ticks belong to the family of *Acarida*; they are of a roundish, flattened form, and are provided with lancets which enable them to penetrate the skin of those whom they infest; three kinds generally cause the troublesome sores above named. The *Acarus domesticus*; *A. scabiei* and *A. autumnalis*; the domestic Tick which collects in the head, and is found near gangrenous sores; the Itch Tick; and the Harvest Bug. See *Avari*.

For treatment (See *Lice* and *Itch*). The inflammation of the skin caused by the Harvest Bug may be allayed by an application of Goulard Lotion.

**TIGLIUM.** The wood of the *Croton Tiglii* when administered in small doses, is said to have a diaphoretic effect; the Root is a drastic purgative and is given in Amboyna and Batavia as a remedy for dropsy; the Leaves are also purgative, and are supposed to be an antidote to the bite of the cobra; the seeds yield by expression the powerfully drastic *Croton oil* (which see). The acrid principle extracted from the seeds of this plant has been called *Tiglin*.

**TINCA** (Latin for a tench). Hence the *Os Uteri*, from their supposed resemblance to the mouth of a tench, are called *Tineæ Os*.

**TINCAL.** Crude Borax, as it is imported in greenish crystals from the East Indies, is so called; when purified, it becomes the commercial *Borax* (which see).

**TINCTURE** (Latin *tingo*, to tinge). A solution of certain principles of vegetable or animal matter in spirit, of greater or less strength. For most Tinctures, proof spirit

sufficiently strong, but some require rectified spirit. The following are the preparations of this kind which are found in the Pharmacopœias.

*Tincture of Aconite*, dose from 7 to 10 minims; *Simple and Compound Tinct. of Aloes*, purgative and stomachic, dose 1 to 2 drachms; *Comp. Tinct. of Ammonia* 5 to 10 minims, stimulant and antispasmodic; *Tinct. of Assafœtida*, stimulant and antispasmodic; *Tinct. of Belladonna*, narcotic, 3 to 8 minims; *Comp. Tinct. of Benzoin*, antispasmodic, expectorant, stimulant,  $\frac{1}{2}$  to 2 drachms; *Tinct. of Columba*, tonic, 1 to 2 drachms; *Comp. Tinct. of Camphor*, anodyne and expectorant, 1 to 3 drachms; *Tinct. of Cantharides*, diuretic, stimulant, 10 to 60 minims; *Tinct. of Capsicum*, stimulant, 10 to 60 minims.

*Comp. T. of Cardamum*, carminative and stomachic, 2 to 4 grains; *T. of Cascarilla*, tonic and stomachic, 1 to 2 drachms; *T. of Castor*, antispasmodic, 20 minims to 2 drachms; *Comp. T. of Catechu*, astringent, 1 to 2 drachms; *Simple and Comp. T. of Bark*, tonic and stomachic, 1 to 3 drachms; *Simple and Comp. T. of Cinnamon*, astringent and stomachic, 1 to 3 drachms; *Simple and Comp. T. of Colchicum*, cathartic, diuretic, and narcotic, 20 to 30 minims; *T. of Conium*, narcotic,  $\frac{1}{2}$  to a drachm; *T. of Cubebs*, stimulant and purgative, 1 to 2 drachms; *T. of Digitalis*, stimulant and sedative, 20 to 30 minims; *T. of the Ammonia-Chloride, and Sesqui-Chloride of Iron*, tonic and astringent, dose of the first, from 1 to 2 drachms, of the second, from 10 to 60 minims; *T. of Galls*, astringent,  $\frac{1}{2}$  to drachm; *Comp. T. of Gentian*, tonic and stomachic, 1 to 2 drachms; *T. of Ginger*, stimulant and carminative, 1 to 2 drachms; *Comp. T. of Guaiacum*, stimulant and diaphoretic,  $\frac{1}{2}$  to a drachm; *T. of Hellebore*, emmenagogue,  $\frac{1}{2}$  to a drachm; *T. of Hops*, tonic, and sedative, 1 to 3 drachms; *T. of Hyoscyamus*, narcotic,  $\frac{1}{2}$  to 2 drachms; *T. of Jalap*, cathartic, 2 to 4 drachms; *Comp. T. of Iodine*, absorbent, emmenagogue, and stimulant, 10 to 30 minims; *T. of Kino*, astringent, 1 to 2 drachms; *Comp. T. of Lavender*, stimulant and stomachic,  $\frac{1}{2}$  to 2 drachms; *T. of Lobelia*, antispasmodic, 1 to 2 drachms; *T. of Myrrh*, deobstruent,  $\frac{1}{2}$  to 2 drachms; *T. of Opium*, narcotic, 15 to 30 minims; *T. of Orange Peel*, tonic and stomachic, 2 to 3 drachms; *Comp. T. of Quinine*, tonic and stomachic, 1 to 3 drachms; *Comp. T. of Rhubarb*, tonic and aperient, 2 to 8 drachms; *T. of Squills*, diuretic and expectorant, 10 to 30 minims; *Comp. T. of Senna*, stomachic and purgative, 2 to 8

drachms; *T. of Tolu*, expectorant, 10 to 30 minims; *T. of Valerian*, antispasmodic, 1 to 3 drachms; *Comp. T. of Valerian*, antispasmodic,  $\frac{1}{2}$  to a drachm. Tinctures are convenient forms of administering many medicines, and they possess the special advantage of keeping good for any length of time. Those of which the ingredients are at all bulky, such as senna, require a press, and few, if any them, can be made to advantage except in large quantities, therefore it is best to buy them ready made of some druggist who can be depended upon for their correct preparation and strength.

**TINEA** (Literally a moth-worm). A term applied to scald-head, when the scabs resemble the holes in cloth which has been moth-eaten. When the eruption resembles a honeycomb, it is termed *favus*; when the discharge is unusually acrimonious, it is called *achores*. See *Porrigio, Skin Disease*.

**TIN GLASS**. An old name for *Bismuth*, (which see).

**TINNITUS AURIS** (Latin *tennio*, to tinkle or ring like metals). Ringing in the ears. This and other unpleasant noises in the ear occur in most fevers and inflammatory affections of the brain; when chronic, they are symptomatic of accumulation of wax of neuralgia, dyspepsia, or of determination of blood to the head. A little aperient medicine will often relieve the symptoms, or syringing the ear with warm water; if it does not, a surgeon had better be consulted.

**TISSUE**, or *Texture*. These terms are applied to the disposition or arrangement of the component parts of the body. Tissue is called *adventitious* or *accidental*, when it is a morbid growth or production, whether it is entirely a new formation, distinct from the natural growth, or assimilated thereto. A part, which is of a fibrous structure, is called *fibrous Tissue*; then we have the *cellular* and *mucoous* Tissues, often called *Membranes*, (which see).

**TITUBATIO** (Latin *titubo*, to stagger). General restlessness, accompanied by a perpetual desire to change the position. See *Fidgets*.

**TOAST**. If not too thick, and equally browned over, without being burned, bread is probably more easy of digestion, toasted, than otherwise; but, as it commonly is, saturated with butter, it is most indigestible, and irritating to the stomach; invalids should never take it so prepared; if they take Toast at all, it should be either dry with a little marmalade on it, or it should



**TOAST-WATER** is a pleasant and wholesome drink for sick persons, if prepared properly, which it seldom is. It should be done thus: cut half a slice off a stale quarter loaf, toast it thoroughly without burning it; put it into a jug with a small piece of orange or lemon-peel; pour on it a quart of boiling water. Let the whole stand two hours, covered up, then pour off the liquid and keep it in a cool place for use.

**TOBACCO.** The dried leaves of the *Nicotiana Tabacum*, of the natural order, *Solanaceae*, or Nightshades; originally a native of tropical America, but now cultivated in all countries sufficiently warm to bring it to maturity. "Strange," observes Mr. Hogg, in his excellent work on "The Vegetable Kingdom and its Products," "that a stinking repugnant herb, smoked by savages in the wilds of Central America, should have spread so rapidly, not only over the civilised world, but even among nations farthest removed from civilisation; that it should have become the source of immense revenues to



powerful governments, and operated in some degree even on the manners and customs of the peoples. Imported from America, soon after the discovery of that continent, it was received into the Old World with a species of enthusiasm, and Europeans, Asiatics, and Africans began to smoke, to chew, and to

convenience involved in the practice began to appear, and a host of enemies were raised against it. Theologians pronounced it an invention of Satan, which destroyed the efficacy of fasting—a point much disputed in the 16th and 17th centuries. Councils forbade it to all ecclesiastics under their control; Popes Urban VIII. and Innocent XI. punished the use of it with excommunication; Sultan Amurath IV. with the most cruel kinds of death; and Schah Abbas II. with penalties almost as severe. Michael Feodorovitch Tourieff ordered a bastinado for the first offence, cutting off the nose for the second, and the head for the third. Prussia and Denmark simply prohibited, and James of England wrote against it. Finding that no penalties, however severe, could check indulgence in this luxury, sovereigns and their governments soon found it much more advantageous to turn it into a source of revenue; and the cultivation and manufacture of Tobacco was gradually subjected, almost everywhere, to fiscal regulations, restrictions, or monopolies, which still prevail in various forms over the greater part of Europe."

And so, we may add, "the weed" has become an admitted "institution" in every land, and among every people. With us, all classes smoke Tobacco, or chew it, or sniff it up the nostrils; and some of its greatest lovers, not content with taking it in one of these ways, do so in two, and even three. What our opinion of the pernicious custom is, will be found under the head of *Smoking*. Taken in the form of snuff, we believe the plant to be equally deleterious, and so largely is this article adulterated, that no snuff-taker can possibly tell what poison, in addition to that of the herb itself, he may be applying to his olfactory nerves and absorbents. Like many other poisons, Tobacco is sometimes useful as a medicinal agent; its leaves are indebted for their peculiar properties to the presence of a volatile alkaloid, called *Nicotin*, and also an oil; its effect on the system is that of a narcotic and sedative, producing sickness, and depressing the action of the heart; it is also slightly diuretic and anti-spasmodic; in over doses it produces convulsions, which are likely to terminate in death. It has been given to relax the muscular system in colic, constipation, and hernia, and has been administered by enema to relieve spasmodic constriction of the bowels; it is, however, far too dangerous for domestic use. The dose of the Powdered Leaves is from 1 to 5 grains; of the Wine, from 16 to 40 minims. To-

tobacco wash has been found useful to destroy parasite insects, and to make an ointment for ulcers and eruptions of the head. Poisoning by Tobacco requires the prompt use of the Stomach Pump or Emetics, and the same general treatment as is recommended for the narcotic class, under the head of *Poisons*.

**TOLERANCE** (Latin *tolero*, to bear). Applied to the power of the system to bear a remedy.

**TONGUE.** This organ, which is altogether that of *Taste*, and to some extent that of *Speech* also (see those two heads), is composed of muscular fibres, which are distributed in layers arranged in various directions. Between these fibres is a considerable quantity of adipose substance, and in the middle is a vertical septum of fibrous tissue. The Tongue is connected behind with the *os hyoides* by muscular attachment, and to the epiglottis by mucous membrane, which forms the three glosso-epiglottic folds called *fræna epiglottidis*. At either side it is held in connexion with the lower jaw by mucous membrane, and in front a fold of that membrane, which is named *frænulum lingue* is formed beneath its under surface. The Tongue is covered by a dense layer, analogous to the corium of the skin, which gives support to *papillæ*. A *raphe* marks the middle line of the organ, and

which sometimes divides into two branches, as in the figure; 2 2 are the lobes, the rounded eminences here, and near the top, being the *papillæ fungiformes*, the smaller ones among which they are dispersed being the *papillæ conicæ* and *filiformis*; 3, tip of the Tongue; 4 4 its sides, on which are seen the lamellated and fringed papillæ; 5 5 the A-shaped row of *papillæ circumvallatæ*; 6, *foramen cæcum*; 7, mucous glands at the root of the Tongue; 8, epiglottis with its fræna (9 9); and 10 10 mark the greater cornua of the *os hyoides*.

We give these scientific terms for the benefit of those who may wish to study the anatomy of the part: let us now explain the matter more simply and clearly.

The Tongue, like the whole of the internal passages of the body, is covered with mucous membrane. This membrane, when examined, is found to be a continuation of the skin which covers the external surface of the body, and, like it, is composed of two principal parts—a layer of fibres and vessels, covered above with cells. It is the condition of these superficial cells that constitutes the difference between the skin and mucous membrane. The first are always dry and hard, whilst the latter are soft, and covered with a fluid secretion, called mucus. This membrane covers the whole surface of the Tongue, and is prolonged below, passing on either side of a mass of tissue under the Tongue, which is called the *frænum*, or string of the Tongue. It is this part of the Tongue which, being prolonged to an unusual extent along the floor of the mouth, constitutes the condition which is called “tongue-tied.” It is very seldom indeed that this affection exists to an extent to require interference; but it is very often imagined to be present by officious nurses and anxious mothers, when the structure of the tongue is perfectly natural. It is to be feared, too, that the simplicity of the process of cutting the frænum has sometimes induced surgeons to perform this operation when there was no necessity. It should, however, be known that occasionally so large a blood-vessel may be wounded in this proceeding as to produce alarming consequences on the system of a new-born babe.

Under the mucous membrane, and causing projections on its surface, lie the *papillæ* of the Tongue. These papillæ vary in size, but are very obvious to the naked eye when the Tongue is put out. On examining them with the microscope, they are found to consist of blood-vessels and



divides it into symmetrical halves. We give here a cut from Wilson, exhibiting the



these little papillæ are not supplied from the same nerves which are furnished to the muscles in order to give them the power of movement, but from a special source; and the branch of the nerve which is thus supplied is called the *gustatory*, on account of its being the part of the nervous system which gives the special sense of taste. Through this organization, then, the Tongue is not only enabled to assist in mastication, but it becomes the principal source of enjoyment in the taking of food, that is agreeable to the taste.

The mucous membrane, as well as the form of the Tongue, are liable to considerable changes in appearance, indicative of disordered states of the system. It is on this account that the Tongue is so constantly examined by the medical man in diseases of the body. Its form and movements will often indicate the general state of the nervous and muscular systems; whilst the appearance of the surface is an index to the condition of the mucous membranes throughout the whole body. Dryness, redness, smoothness, and the amount of white secretion on its surface, are all points from which important conclusions can be drawn, both with regard to the nature and treatment of disease.

With regard to the morbid appearances of the Tongue, we may note that it is sometimes *loaded*, as it is termed, the upper surface being covered with a layer of mucous substance which may be scraped off with a Tongue scraper; this indicates a foul stomach; in severe cases of dyspepsia this coating often becomes very thick and peels off, leaving the Tongue red, moist, and tender; sometimes the coating is dark brown, resembling fibres, which admit of being separated by the fingers; it is then said to be *furred*, and this is symptomatic of great local irritation arising from inflammation. In feverish conditions of the system the Tongue becomes very dry and hot, parched, as it is called; if clammy and viscid, there is usually derangement of the digestive functions; a yellow tinge on the coating of the Tongue indicates biliary disorder; a thin creamy white, inflammatory disease in the abdomen; in sore throat, we often find it of a dingy whitish colour; in scarlatina we have elongated papillæ, presenting bright red spots; and in some forms of intestinal irritation and hæmorrhage, it is morbidly clean and red. In anæmic patients we find this organ partaking of the general condition of the system, being pale and flaccid; in paralysis it is drawn on one

tions, it is tremulous; and in low stages of fever it becomes almost black, and cannot be protruded. Thus to the instructed eye the Tongue affords a pretty sure indication of the state of the system, and is always consulted by the physicians as a reliable authority.

Before, however, such evidence can be properly weighed, an acquaintance with the normal condition of the Organ is necessary; some Tongues are scarcely ever thickly coated under any circumstances, and others are scarcely ever clean, be the bodily health ever so good; some are always dry, others always moist, and in shape and size they differ considerably in different individuals; the medical attendant will understand and allow for all this.

The Tongue is subject to inflammation, ulceration, and other maladies, among them that terrible one *Cancer*. In the first case there will, it is likely, be a great increase in the size, a full longitudinal incision down each side will afford quick relief by the loss of blood. For ulcerations, commonly caused by indigestion or mercurial salivation, a lotion of Chlorate of Potash, 2 drachms to the  $\frac{1}{2}$  pint, should be used frequently, with gentle aperient medicine. For *Cancer* but little can be done. See that head.

**TONICS** (Greek *tonos*, from *teino*, to stretch). Medicines which restore the tension and vigour of the muscular fibre when it is weakened and relaxed; they may be divided into classes, as thus:—those which act *indirectly* by passing into the blood, and exerting their influence through the circulation; these are the Bitter Tonics, such as Calumba, Camomile, Cinchona, Gentian, Quassia, Quinine, Salicicæ, &c. The *direct* Tonics include Iron in its various forms, the Mineral and Vegetable Acids. Among Non-Medical Tonics may be named, Cold as variously applied, Exercise, a Pure and Bracing Air, and Mental Emotions of a pleasant and stimulating character. See also heads of the several diseases, among whose remedies Tonics have a prominent place. *Tonicity* is a term sometimes used to denote strength and elasticity of the muscular fibre.

**TONSILS** (Latin *tondeo*, to clip or shear). These are the round, or oval-shaped glands situated between the arches of the palate; they secrete a mucous fluid, the use of which does not seem quite clear. In their natural state they can easily be discerned slightly projecting on each side of the fauces, but when swollen and inflamed, as they often are in weakly and scrofulous persons, they

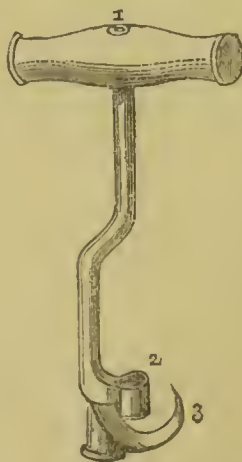
are very noticeable, being bright red, and often hanging down, so as nearly to close the passage of the gullet, and render swallowing very difficult. With enlarged Tonsils, there is always, more or less, thickness of speech, and a great liability to sore throat or quinsy. Tonics and astringent gargles are required for such enlargement, and a long perseverance in the latter is necessary; the glands should be now and then brushed over with a solution of Nitrate of Silver, or rubbed with the stick itself; but this should be done very carefully, so as not to touch the surrounding parts. Should the enlargement become prominent, it is best to have the Tonsils cut by a surgeon; this is not a dangerous nor very painful operation. In ulcerated sore throats, the Tonsils generally become impaired, and are very painful and even dangerous; to inflammation of the throat the term *Tonsillitis* has been applied. See *Throat, Ulceration*.

**TOOTH ACHE.** For this distressing and very common malady almost every one has a "sure cure," the peculiarity of which is, that it does little or nothing to mitigate the anguish of the sufferer to whom it is recommended, which anguish is commonly caused by the exposure of the interior pulp, containing the nerve and blood-vessels, to external influence, by decay of the outer portion of the Tooth. Among the remedies which we have to suggest, as having found them pretty generally successful, are, Creosote, Chloroform, and Laudanum: separately or in combination, they may be tried all ways: the mode of application is to saturate a small piece of lint or wadding, and introduce it into the hollow of the Tooth, keeping it there as long as may be necessary; should there be no available hollow, put it as close as possible to the seat of pain. Many of the other remedies recommended we have known to afford relief occasionally; such as inhaling the vapour from Henbane Seeds, put on a hot piece of metal; chewing a piece of Pellitory Root; or using the Tincture; putting a piece of Sal Prunella in the mouth and allowing it to dissolve; applying a drop or two of the Oil of Cloves, or Cinnamon, on lint; or thrusting into the hollow Tooth a piece of wire previously dipped in strong Nitric Acid; this application, if properly made, destroys the nerve, but it must be very carefully done, so that the acid does not touch the other teeth or the mouth. An aching Tooth may oftentimes be stopped, and remain serviceable for years; but this must not be done while the nerve is in an inflamed state, as in this case

the pressure will but increase the anguish. Where a Tooth is so far gone as to be very troublesome, it is best to have it out; the pain of the operation is sharp, but short, while the constant ache, ache, ache, destroy alike health and spirits, and unfits one for all the active duties of life. See *Teeth*.

**TOOTH EXTRACTING.** This is one of the minor surgical operations which might, if the necessity arise, be performed by a member of a household, or a community, to relieve another of suffering. We would by no means counsel resorting to an unskilful hand for such relief; but pressing occasions for it may, and do often, arise, when the aid of a surgeon or dentist cannot be obtained; especially is this likely to be the case with emigrants, with an eye to whose use and advantage much of this work has been written.

The instruments required for this operation are a key, like the one here represented,



and two or three pairs of Forceps, like those of which cuts are given at page 286 of vol. I., if only two pairs are procured, one should be straight and the other curved. By skilful dentists the key is now almost discarded, but the amateur will find it indispensable for the double teeth. This instrument consists of a handle, which is placed cross-wise to the direction of the cushion (2), which acts as a fulcrum, and the claw (3), which is fixed on with a screw, so that it can be taken off, and another substituted, should it not be of the size required for the tooth; several of these claws are sold with the keys. Now, as to the mode of operation: Cause the patient to sit down low—on the floor is best—so that you have a good command of his position; let him throw his head well back against your



body; then, having previously guarded the cushion of the key (2), by wrapping a piece of lint round it, place the instrument so that the points of the claw come just below the crown of the tooth on the *outer side*, and the cushion rests opposite to it on the inner; then, grasping the handle, give a firm, though gentle turn inwards; and if the claw is properly fixed, and the top of the tooth does not break off, it will be lifted out of the socket. The operation is rather a trying one to the nerves of one unpractised in the work; there is the consciousness of inflicting excruciating pain, the fear of failure, and of an accident, such as a breakage of the jaw. But having once determined on the necessity of the act, these must not be suffered to influence the mind. There must be no haste, no jerking of the instrument, or the mischief apprehended will be very likely to occur. When the Tooth is out, put into the cavity a piece of lint soaked with Laudanum. After the mouth has been rinsed with warm water, if the bleeding should be excessive, soak a piece of lint in a strong solution of Alum or Sulphate of Copper, and press it in as lightly as possible, avoiding for a time all unnecessary motion in the jaw, or taking of hot drinks. (See *Hæmorrhage*).

The forceps are required for single teeth, before and behind which the two blades or claws are fixed, so that they are below the crown or widest part of the tooth, and exactly opposite to each other, just within the margin of the gum; then, grasping the divided handle firmly, and pressing the two halves together, lift the tooth with a gentle rotatory motion out of the socket by the mere strength of the wrist. In this case there is no lever power to assist the hand, and the muscles must do it all. Dentists say that it is best so, as they can then apply just the amount of force required, and "feel their way." Cases of jaw fracture with the forceps very rarely occur, with the key they are not unfrequent, (for treatment of such, see *Fractures*).

For extracting stumps of Teeth, an instrument called an Elevator is required, but this no unprofessional hand should attempt to use. Under the head of *Infant* (vol. II. p. 39), will be found a cut of a Gum Lancet, which is sometimes required for loosening the gum from the Tooth previous to extraction; it is best for an amateur always to use this, or he may lacerate the gum in his operation.

To delicate, nervous females, and even to sensitive men, Tooth extraction is a very formidable operation, however skilfully per-

formed; yet we would not recommend the use of chloroform, or other anæsthetics, except there were stamps to extract, or several Teeth to be drawn. Intense cold and electricity have lately been called in to render this a painless operation, and we see no objection to the employment of such agents.

**TOPHUS** (Greek for a crumbling gravel stone), applied to a swelling which particularly affects the bone, or the periosteum.

**TOPICA** (Greek *topos*, a place). This term is applied to topical or local remedies, those applied to the immediate seat of disease, in contradistinction to those which aim at effecting a cure by acting on the system generally. The two classes of remedies may be used together, as they commonly are.

**TORMENTILLA.** This plant, which is the *Tormentilla Erecta* of botanists, and belongs to the natural order *Rosaceæ*, is plentiful on barren pastures and heaths of this country. It contains about 18 per cent. of tannic acid, and is given medicinally as an astringent tonic, and in internal hæmorrhages and



fluxes. It is well adapted for astringent lotions, and gargles, &c. Dose of the Powdered Root from 30 grains to a drachm; of the Decoction, made by boiling 1 oz. of the root in 1½ pints of water until reduced to a pint, 1½ ounces three times a day.

Some of our older physicians entertained a high estimation of the virtues of this plant. Dr. Graham says:—"It is a mild,

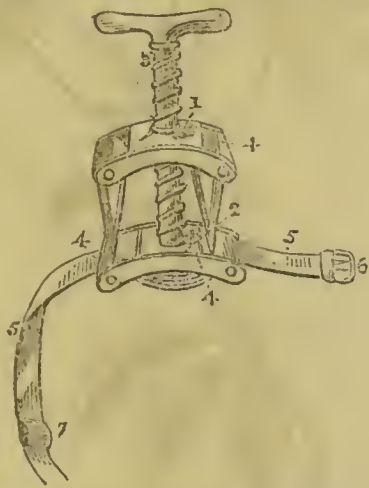
yet powerful astringent, of great service in looseness and dysentery; it operates without producing any stimulant effect, and is therefore well adapted to check the diarrhoea attendant upon pulmonary consumption, and in other cases of that complaint, where the general excitement is considerable. For this purpose its union with small doses of Ipecacuanha forms a very eligible medicine." Dr. Thornton says:—"I have found in fluxes of blood, a drachm (of the powder) given four times a day, do wonders;" and he speaks of cases of obstinate ague, long-standing diarrhoeas, and scorbutic ulcers, which had been sent out of hospitals as incurable, cured by a strong decoction of the plant, sweetened with honey.

**TORMINA** (Latin plural of *tormus*, an obsolete word). The griping pains which sometimes accompany enteritis and diarrhoea.

**TORPOR** (Latin *torpeo*, to be benumbed). Insensibility, mental or corporeal. This is very commonly the result of debility arising from long-continued illness, or old age; it is sometimes called *Torpidude*.

**TORTICOLLIS** (Latin *torqueo*, to twist, and *collum*, the neck). See *Wryneck*.

**TOURNIQUET** (French *tournevis*, to turn). An instrument for checking the flow of blood into a limb during an operation, or for



arresting hæmorrhage by pressure until some more permanent mode can be devised.

Of this instrument we give a cut, by which it will be seen to consist of an upper and lower portion (1 and 2), which can be drawn together or separated, by means of a screw (3). Connected with these portions are rollers, through which is run a strong band of webbing (5) into a buckle (6) at one end, and at the other a moveable pad (7). To apply the instrument, buckle the band (5)

around the limb, and adjust the pad so as to press upon the course of the main artery above the seat of injury. Then, by a few turns of the screw, the band will be shortened around the limb, and pressure exerted by means of the pad to any required degree, and thus the flow of blood may be controlled and hæmorrhage arrested.

**TOUS-LES-MOIS**. This is a recently introduced starchy matter like arrowroot, which it closely resembles in its properties. It is the fecula, or starch, procured from the rhizomes of several species of *Canna*, as *C. Coccinea*, and *C. Arifiras*. See *Starch*.

**Tow**. The waste fibres, or refuse, after carding flax. It is used in surgery for filling up the hollows in splints, and other contrivances for setting fractures, &c. The Latin name is *Stuppa* (which see).

**TOXICODENDRON**, or *Poison Oak*. This is an American plant, and is sometimes called the Virginian Sumach; it is the *Rhus Toxicodendron* of botanists, of the natural order *Terebinthaceæ*; the Leaves are poisonous in large doses, but from 1 to 3 grains may be given safely; they stimulate the nervous centre like strychnia, and are therefore given in cases of local paralysis, whether of sensation or motion. In chronic rheumatism and obstinate skin diseases, they have been found useful.

**TOXICOLOGY** (Greek *toxicon*, poison, and *logos*, a description). An account of poisons, their classification, effects, &c.

**TRABECULA** (Latin diminutive of *trabes*, a beam). A small beam: a term applied to the small medullary fibres of the brain, which constitute the commissures. See *Brain*.

**TRACHEA** (Greek *trakos*, rough). The Windpipe. This is the passage through which air is forced from the lungs to produce vocal sounds. It is a muscular and cartilaginous tube, and is sometimes called *arteria aspera*, from the roughness or inequality of its cartilages. The Trachea is cylindrical for about two-thirds of its circumference, and flattened in the posterior third, where it rests on the œsophagus; it extends from opposite the fifth cervical vertebra, to opposite the third dorsal, where it divides into the two bronchi; the length of the tube is about four inches, and its diameter from side to side nearly an inch; it is somewhat larger in the male than female. The right bronchus, larger than the left, passes off at nearly right angles, to the upper part of the corresponding lung. The left descends obliquely, and passes beneath the arch of the aorta. The cartilaginous rings of which this tube is com-



posed are connected by membranes, the outer one being fibrous, and, the inner mucous, and supplied with nerves, blood vessels, and mucous follicles. (For cut of *Trachea*, see *Lungs*, vol. II. p. 103). Sometimes inflammation of this tube occurs; it is called *Tracheitis*; (for treatment, see *Inflammation*, and *Throat*). The operation of making an opening into the windpipe, which is sometimes necessary, is termed *Tracheotomy*.

**TRACHELOS** (Greek for the Neck). Hence the terms *Trachelo-mastoides*, and *T. Scapular*, the first being a muscle, which draws the head backward or obliquely; and the second being the designation of certain veins, which arise near the neck and shoulder, and contribute to form the external jugular. See *Veins*.

**TRAGACANTH**. This substance is a gummy exudation from several species of *Astragalus*, natural order *Leguminosæ*. The best and, indeed, the only true Tragacanth is the produce of *A. Vera*, a small shrub, which is a native of the Levant. This gum, which consists principally of *Bassorine*, is not soluble in water, but when moistened it swells up into a very tenaceous paste or mucilage,



which is used as a demulcent in coughs, diarrhoea, &c., but chiefly as a vehicle for other medicines. The Compound Powder of Tragacanth is given in doses of from  $\frac{1}{2}$  to 1 draehm, mixed with water it forms a mucilage useful for suspending insoluble powders.

**TRAGUS** (Greek *tragos*, a goat). A small cartilaginous eminence at the entrance of the external ear; so named because it is sometimes hairy, like the beard of a goat. A muscle of a triangular form, arising from

the middle and outer part of the concha and inserted into the top of the Tragus which it pulls forward, is called the *Tragicus*. See *Ear*.

**TRANSFORMATION** (Latin *transformo*, to change from one shape to another). This term denotes those accidental or adventitious tissues, which usurp the place of the natural structure of organs.

**TRANSFUSION**, (Latin *transfundo*, to pour from one vessel into another). The act of transfusing the blood of one animal into the veins of another. The operation of injecting the blood of a healthy person into the veins of one sinking from the exhaustion of hæmorrhage has been, on several occasions, tried with good results; but the idea that a diseased person can be restored to health and vigour by this act, as some have believed, is altogether erroneous.

**TRANSUDATION** (Latin *transudo*, to perspire). A term sometimes applied to the act of *Perspiration*, or the process by which fluids pass through porous substances. By some anatomists the arteries and veins are represented as being porous, and parting with their contained fluids by transudation, imbibing at the same time extraneous fluids, by capillary attraction.

**TRANSVERSALIS** (Latin *transversus*, across). Hence the terms *T. abdominis*, a muscle which supports and compresses the bowels; *T. colli*, a muscle which turns the neck obliquely backwards and to the side; *Transversus auris*, *T. pedis*, and *T. perinei*, the names of three muscles, the first of which belongs to the ear, the second to the great toe, and the third to the urethra, which it is supposed to dilate. See *Muscles*.

**TRAPEZA** (Greek for a table). Hence the terms *Trapezium os*, and *Trapezoides os*, two bones, which belong to the row that supports the metacarpal bones (see *Foot*); and *Trapezius*, a muscle which draws the scapula in several ways, according to the direction of its fibres. See *Scapula*.

**TRAUMATIC** (Greek *trauma*, a wound). Belonging to, or caused by, *Wounds* (which see). The well-known styptic, Friar's Balsam, Jesuit's Drops, or Wade's Drops, as the Compound Tincture of Benzoin has been variously called, was also termed *Traumatic Balsam*.

**TREACLE**, or *Molasses*. The uncrystallizable part of common *Sugar* (which see).

**TREMOR** (Latin *tremo*, to tremble). Tremulous agitation of the limbs, hand, &c. This may be the result of old age, or of *Palsy* (which see). It may also be the result of an abuse of the constitution by *Intemperance* (which see).

**TREPAN** (Greek *tryphao* to perforate). The operation of trepanning is sometimes performed on those who have so injured the skull that it is necessary to remove part of the bone; this is accomplished by means of a kind of circular saw called a *Trephine*.

**TRIANGULARIS STERNI**. A muscle which arises from the lower part of the sternum and ensiform cartilage, and is inserted into the cartilages of the 3rd, 4th, 5th, and 6th ribs; it depresses the ribs, and is a muscle of expiration; it is sometimes called *Sternocostalis*.

**TRICEPS** (Latin *tre*, three, and *caput*, a head). Anything three-headed, as some muscles are, and are hence called by such names as *T. extensor cubiti*, and *T. cruris*; the first of these extends the forearm; the second has been separated into three divisions, arising from one or other of the *Trochanters* (which see).

**TRICHIASIS** (Greek *trixos*, the hair). An unnatural direction of the cilia, or eyelashes, in which they turn in against the eyeball. This affection is sometimes called the *Pilare Malum*, or *Tricosis*.

*Distichiasis*, or "double row," is a modification of this affection; this is a partial series of cilia produced on the inner margin of the lid, in addition to the natural row.

**TRICUSPID** (Latin for having three points). A term applied to the valve situated between the right auricle and the right ventricle of the heart, on account of being divided into three triangular portions.

**TRIFACIAL** (Latin for having three faces). Applied to the grand sensitive nerve of the head and face, commonly called the 5th pair.

**TRIGONAL** (Greek for having three angles). Applied to a triangular space on the fundus of the bladder, where the mucous membrane is smooth or void of ridges.

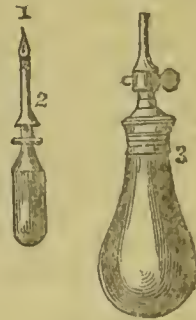
**TRIQUETRA**. The triangular bones sometimes found in the course of the lambdoid suture in the *Skull*, (which see).

**TRISMUS** (Greek *triso*, to gnash with the teeth) Locked-Jaw. See *Tetanus*.

**TROCHANTER** (Greek *trokao*, to run or roll). The name of two processes of the thigh-bone—the *major* and the *minor*; they are named from their office of receiving those large muscles which bend and extend the thigh, and turn it upon its axis; they form, as it were, shoulders to the thigh-bone. A rough line situated between the greater and lesser Trochanters, to which the capsular ligament is attached, and into which the quadratus femoris is inserted, is called the *Inter-trochanteral line*.

**TROCHAR** (French *trois quart*, three-

fourths). An instrument so called from its point being of a triangular form; it is used to discharge aqueous fluids from the different cavities of the body, and consists of two distinct portions, a perforator or *stilette* (1), and a sheath, or *canula*, (2). In using, the



point of the perforator, (1) makes the opening in the part to be emptied of fluid; the instrument passes in up to the neck of the sheath, (2) which fits close to the perforator, the latter is then withdrawn, leaving the former in, to serve as a passage for the fluid. When the cavity is emptied, an injection is sometimes thrown in by means of the elastic bag (3) whose pipe fits close to the canula: this latter is then withdrawn, and the wound covered with plaister, or other dressing. This is the instrument used in tapping for *Dropsy* or *Hydrocele* (which see).

**TROCISCTS** (Greek diminutive of *trokos*, a wheel). A lozenge, or round tablet, made up with sugar, or a glutinous substance and some drug, of which this is a pleasant and convenient mode of administration. Owing to the uncertainty of their strength, these preparations are not much ordered, or recognized, by the medical profession; but they have their advantages. See *Lozenges*.

**TROCILEA** (Greek *trokos*). The name of a pulley-like cartilage, through which the tendon of the trochlear muscle passes. See *Ear*.

**TROCHOIDES** (Greek *trokos*, a wheel, and *eidos*, likeness). Wheel-like; a species of diarthrosis, or moveable articulation of bones, in which one bone rotates upon another, as the radius upon the ulna.

**TRONA**. The African name for the Sesquicarbonate of Soda, which is collected on the coast of Barbary by the natives, and imported into this country. See *Soda*.

**TROPICAL DISEASES**. The effects of a residence in a warm climate are oftentimes such as to induce a peculiar class of diseases, which we distinguish by the above name, and to which incidental references will be found under such heads as *Bile*, *Climate*,

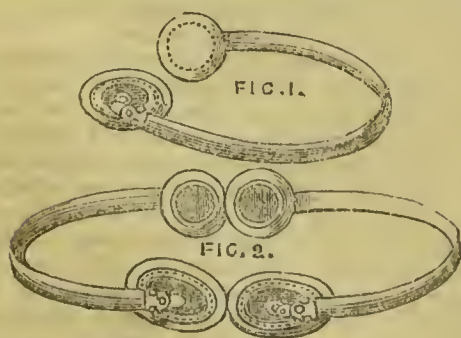


1866, 1867, &c. Liver complaint, as they are termed, are almost universal with Europeans who have sojourned long in tropical climes, and dyspepsia is very general. Directions for the treatment of these will be found under their proper heads.

**Truss (French *trousse*).** A bandage, or apparatus used in cases of Hernia, to keep up the reduced parts, and prevent further protrusion.

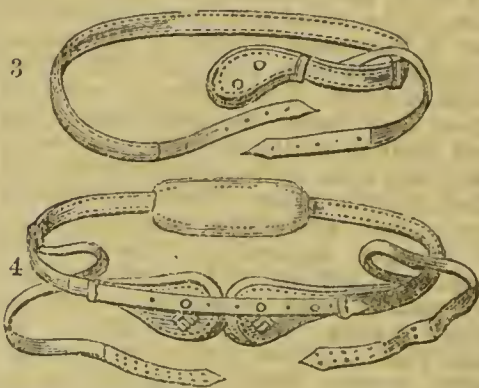
Having under the heads of *Hernia, Pro-lapsus, Rupture, &c.*, given an account of the different kinds of injuries for which Trusses are required, we have only now to describe the varieties in the apparatus necessary to be worn. This will depend very much upon whether the rupture is *umbilical, inguinal, femoral, or scrotal*; although several other varieties are spoken of under the head of *Hernia*, yet these are the principal ones, and all that a non-professional person need trouble himself about; for the others can only be distinguished and treated by a surgeon. For umbilical Hernia, the seat of which is the navel, an elastic belt, with an expansion in front, in the inner centre of which is a pad, or a truss on the ball and socket principle, is all that need be worn: if the case is very bad, with much protrusion and enlargement of the abdomen, an apparatus expressly made for it will be required.

For Inguinal Hernia—the most common form—Packham's opposite-sided Truss is perhaps the best; the principle is the same as that of Salmon and Odv's expired patent, here represented (1). In this, if the injury is



in the right side, the spring passes round the left side of the body, and across the lower part of the abdomen, to the seat of the Rupture; if in the left side, then the spring passes round the right side of the body, the back and front pads being connected with a strap, in Packham's, which we think the better arrangement. With the Double Truss (2) each oval pad is placed on its own side, the spring not extending

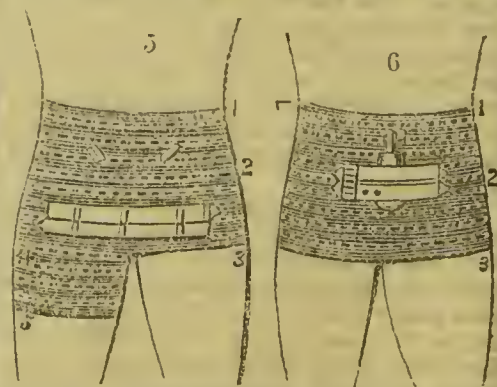
over the front. The principle of this kind of Truss may also be adapted to such femoral Ruptures, as are situated lower down in the thigh, by having an elongated pad, or a spring with a downward curve at the end, and using a thigh strap; but for many of these the old fashioned Truss suits best; see cuts 3 and 4; the first being single and



the second double. Here we have a thick pear-shaped pad, with a downward curve; the lower straps are intended to pass under the thigh.

For Scrotal Hernia very frequently a Bag Truss has to be worn; that is similar to a *Suspensary* (which see), but much larger; when, however, the bowel, which passes out of the abdomen at the groin, and afterwards glides down to the scrotum, can be returned, and there is no permanent swelling, the same kind of pressure is available as in Inguinal Rupture.

In some cases, where it is difficult, and, indeed, almost impossible, owing to the flatness of the back, to make a Spring Truss keep in its place, the Elastic Belt, with air pad, of M. Bourgeaud, may be used with



success. Of this invention we give a cut, No. 5, representing the invention adapted to inguinal or femoral, and No. 6 to um-

purpose, not of a Truss only, but also of an abdominal supporter. There is an equalized pressure over the parts adjacent to the seat of Rupture, and at that spot the pressure is increased by an internal air pad, and by drawing tight the straps over it.

Ruptured persons should always be very cautious of muscular exertion, without support to the part, and also to remove their truss, if the bowel gets down beyond the pad; in this case it is better to be without an instrument than with one. The Truss should be taken off on retiring to rest, and put on again before the body assumes the erect position in the morning, care being taken that none of the prolapsed viscera is out of its proper places. The Truss should be kept covered with a linen case, which can be changed frequently; otherwise the leather will get wet with perspiration, and unpleasantly harsh and stiff in a short time, as well as dirty. It is best to get a well-made Truss, and have it fitted on by a competent person; almost every one has its peculiarities, and a trifling difference in the length or strength of the spring, or in some one or other of the details of make or arrangement, may render the instrument rather injurious than beneficial.

**TUBER** (Latin *tumeo*, to swell). A protuberance, or tuberosity: hence the terms *Tuber ischii*, a round knob forming that point of the ischium upon which we sit; hence this bone has been named *sedentarium*. The *Tuberosities* of the os humeri are two small lumps of unequal size, called the greater and smaller, situated at the upper end of the bone, just behind the head.

**TUBERCULUM** (diminutive of *tuber*). A small swelling, called a *tubercle*; it occurs as a peculiar morbid product in various organs. The *Tubercula Quadragemina* are four tubercles occurring on the posterior surface of the Pons Varolii; the two upper are termed the *nates*, the two lower the *testes*. *Tuberculum Loweri* is a thickening of the muscular coat of the heart, by which the orifices of the *venæ cavae* are separated from each other.

**TUBULUS** (Latin diminutive of *tubus*, a pipe). Hence *Tubuli lactiferi*, *T. semmiferi*, and *T. uriniferi*; the first being the tubes of the *papilla*, through which the milk passes; the second, those which constitute the parenchyma of the testes; and the third, those minute convergent tubes which constitute the tissue of the tubular substance of the *Kidney* (which see).

**TUMID LEG.** See *Phlegmasic*.

term is commonly applied to any kind of swelling, but properly it means one of a permanent kind. Tumours are capable of division into two classes, viz., *Sarcomatous*, so named from their firm fleshy feel; they have been classified by Abernethy into, 1st, *Common Vascular*, or *Organized Sarcoma*, including all those tumours which appear to be composed of the gelatinous part of the blood, rendered more or less vascular by the growth of vessels through it; 2. *Adipose Sarcoma*, including fatty Tumours, formed at first, like the preceding, of coagulated lymph, rendered vascular by the growth of vessels into them, and depending for their future structure on the particular power and action of the vessels; 3. *Pancreatic Sarcoma*, so called from the resemblance of its structure to that of the pancreas; 4. *Mastoid*, or *Mammary Sarcoma*, so called from the resemblance of its structure to that of the mammary gland. This species is placed between such sarcomatous Tumours as are attended with no malignancy, and the following ones, which have this quality in a very destructive degree; 5. *Tuberculated Sarcoma*, composed of a great many small, firm, roundish Tumours of different sizes and colours, connected together by cellular substance; *Medullary Sarcoma*, so named from its presenting the appearance of the medullary matter of the brain; 7. *Carcinomatous Sarcoma*, or Cancerous Tumour. In the second class are the *Encysted*, commonly called Wens, and consisting of a cyst, which is filled with matter, the species are, 1, *Steatoma*, containing fat-like matter; 2, *Meliceris*, or honey-like matter; 3, *Atheroma*, or pap-like matter.

All kinds of swellings, then, of a permanent character, come properly under the designation of Tumours. The *White Swelling* on the knee, and *Cancer*, are both Tumours; so are the fleshy protuberances which we see on the necks, or the heads of persons, attaining occasionally an enormous size without causing much, if any derangement of the general health. Commonly, when one of these get so large as to be inconvenient, it may be removed by a surgeon without any danger to the patient; and not unfrequently, when the base of connection is not very large, they may be got rid of by tying a ligature of silk, or metallic wire, tightly round it, and so, by stopping the circulation by which it is fed and supported, cause it to become dead matter, and slough away.

"Carcinomatous Tumours," says Abernethy, "in common with the encysted; may be considered as edifices built up by diseased



afterwards to the habit. The treatment of both these, and the encysted Tumours, may be regarded as the same, viz. that of reducing the temperature of the part, and applying leeches when the inflammation is active, and the use of stimulants when the inflammation has quite subsided, and the Tumour is of an indolent character. In all cases where Tumours are formed, an increased and sometimes a disordered action of the vessels which form them is supposed. In the growth and reproduction of destroyed parts, a glutinous material is first effused, which afterwards becomes vascular; and this process is adduced as the simplest manner in which Tumours are formed. It is probable that all Tumours are at first formed in this way, but that the peculiarities which they afterwards exhibit depend upon some diseased peculiarity."

Fleshy Tumours may be either fibrous or fatty; the former are the most difficult of removal. Abernethy says of the latter kind—"It is such as young men who wish to distinguish themselves should be on the look out for. You have a patient apply to you with a swelling; you make an incision into it, put in your finger, turn it round between the capsule and the Tumour, and out it comes." Of encysted Tumours, says the same authority, "I should not be inclined to inject or irritate them by the introduction of a tent; but to lay the part freely open, squeeze out the contents, put on a bread and water poultice, and attend to the state of the general health." See *Wens*.

**TUNBRIDGE WELLS.** These waters are pure carbonated chalybeates, containing about  $1\frac{1}{4}$  inches of carbonic acid, and  $\frac{1}{2}$  an inch of nitrogen to the pint. The proportion of oxide of iron is small, about  $\frac{1}{8}$  of a grain; and this, owing to the presence of the carbonic acid, remains in solution at a temperature of 140, so that it acts strongly even on persons in health; and so much so on invalids, that those who have any inflammatory symptoms, or are of plethoric habits, should not take them. Where there is debility of the digestive organs, causing dyspepsia, squamous disease of the skin, gravel, languor, and uterine debility, these waters are found serviceable. The wells are situated in Kent, about 40 miles from London, amid picturesque scenery, upon a dry soil, and in a situation screened from the north-east winds.

**TUNICA.** The upper tunie of the Romans; hence it is applied to several membranes of the body, viz., *T. albuginea oculi*, a fibrous membrane situated immediately

*adnata*, a mucous membrane which lines the posterior surface of the eyelids; *T. Ruyschiana*, an inner lamina of the choroid membrane, so called after Ruysch, who first injected it; *T. arachnoidea*, a cobweb-like membrane, situated between the dura and pia mater; *T. albuginea testis*, a fibrous membrane enveloping the testes; *T. vaginalis testis*, a serous membrane of that part.

**TURBINATED BONES** (Latin *turbo*, a top). Two bones of the nostrils, so called from their being formed in the shape of a top, or inverted cone. They are also called the *Inferior Spongy Bones*, to distinguish them from the upper spongy bones, which form part of the ethmoid bone, and from their spongy appearance.

**TURMERIC.** The root of the *Curcuma Longa*, of the natural order *Zingiberaceae*, a native of India and Cochin-China, is a



stimulant aromatic, and is used like ginger in the East as a condiment, entering largely into the composition of Curry Powder. It is sometimes given in doses of from 15 to 20 grains, twice a day, for flatulency. In India it is sprinkled on ulcers to stimulate them to healthy action.

**TURNER'S CERATE.** This is the *Ceratum Calamine* of the Pharmacopœia, consisting of prepared Calamine and Wax, of each  $\frac{1}{2}$  a pound; Olive Oil a pint. It is a good application for ulcers with a thin acrid discharge; to burns after the inflammation has abated; and to the eyelids in affections of the tarsi.

*geræ*, or mustards; they are among the most nutritious of culinary vegetables, containing albumen, sugar, and a considerable proportion of fibrine. These, however, are combined with much water, and the whole having a laxative and diuretic effect, Turnips are apt to disagree with persons of weak digestion, and cause flatulency. The scientific name of the Turnip is *Brassica Rapa*; in its wild state it furnishes an oil similar to Rape and Colza. Turnip Poul-tices are sometimes used when moist warmth is required, but these are objectionable on account of the smell.

**TURPENTINE** (Latin *Terebinthina*). The Oil or Spirit of Turpentine, as it is commonly called, is procured by distillation from the resinous exudations of many trees of the pine tribe, but especially from the *Pinus Palustris*, or Swamp Pine, of America, of which we give a cut.



The action of Turpentine on the system is anthelmintic, diaphoretic, diuretic, purgative, and stimulant; it is also given as an astringent: externally it acts as a rubefacient. As an anthelmintic it should be given in combination with Castor Oil, lest, failing to purge, it should stimulate the urinary organs too much, and produce dysuria; as a diuretic, it is prescribed in dropsy and suppression of urine; as a purgative, it is useful in cases of tym-

acent stages of puerperal fever; as a stimulant to the nervous system, in neuralgia and epilepsy; as an astringent, in internal hæmorrhages, and to check the mucous discharge in gonorrhœa and leucorrhœa. Guthrie and others have prescribed it in inflammation of the eye. The ordinary dose, as a stimulant and diuretic, is from 10 to 30 minims; as a cathartic or vermifuge,  $\frac{1}{2}$  an ounce to 2 ounces, with Castor Oil: the best mode of administration is to suspend it in mucilage or yolk of egg. In the London, Edinburgh, and Dublin Pharmacopœias, is a Turpentine Liniment to be applied on lint to burnt or scalded surfaces, and a Turpentine Enema useful as a vermifuge, and as an antidote in *Tympanitis* (which see).

*Canada Balsam*, *Chio* or *Cyprus Turpentine*, *Common* or *Stone Turpentine*, *Strasburgh Turpentine*, and *Venice Turpentine*, are all the products of different species of Pines, which belong to the natural order *Coniferae*; they differ but little in their medical properties.

**TURPETH** or **TURBETH**. A name given to the cortical part of the root of a species of convolvulus brought from the East Indies; it never came much into use as a remedial agent.

**TURPETH MINERAL**, the name given by chemists to the Bi-sulphate of *Mercury* (which see).

**TUSSIS** (Latin for a cough). Hence the terms *T. humida*, *T. sicca*, *T. convulsiva*, humid, dry, and convulsive, or *Whooping Cough* (which see).

**TUSSILAGO** (Latin *tussus*). The scientific name of a native plant, belonging to the order *Compositæ*, has from the earliest ages been regarded as a powerful expectorant. It is commonly called *Coltsfoot* (which see).

**TWINS** (Latin *gemini*). This term comes properly under the head of Multiparous Labours, that is, labour complicated by a plurality of children, mostly produced at a common birth; but sometimes, owing to the incidental death of one of them, there is sometimes a material difference in the time of their expulsion, and consequently in their bulk, or degree of maturity giving us, according to Dr. Good, two varieties, *Congruous* and *Incongruous Twinning*, the first being of equal, or nearly equal growth, and produced at a common birth; and the second, of unequal growth, and produced at different births. See *Labour*.

**TWITCHING** (Saxon *twicean*, to pull out with a jerk). Short spasmodic contractions of the muscles, a not uncommon symptom



A single muscle, or a set of muscles may be affected in this way, causing a jerk or involuntary motion of the head, or hand, or some other part, which is very inconvenient and disagreeable.

**TYLOSIS** (Greek *tylos*, a callosity). A swollen or knotty state of the eye-lids, in which the margin often loses its natural form and appearance. Thickening of the lids has been also termed *Pachy-blepharosis*; and when attended with loss of the cilia, the affection has been termed *Ptilosis*. See *Eye*.

**TYMPANIS** (Greek *tympanon*, a drum), commonly called *Tympany*. A distension of the abdomen, which returns a drum-like sound when struck with the hand. It is caused by an accumulation of gas in the abdominal cavity, and sometimes occurs in fevers and acute inflammations, in which case it is a very alarming symptom. In Chronic Tympany, or Drum-belly, there may be an enormous distension, so as to interfere with all active exertion, and even to impede the breath. Clysters of stimulant aromatics, such as Assafoetida, Peppermint, Turpentine, and warm stomachic medicines, such as Sal Volatile, Tincture of Cardamom, Valerian, &c., will probably afford relief; if not, Mineral Acids with bitter tonics, should be tried. The bowels should be kept well open with aperients, like Tincture of Rhubarb.

**TYMPANUM** (Greek *tympanon*). A narrow chamber which opens into the posterior fauces through the Eustachian tube; and commonly called the *Drum of the Ear* (which see).

**TYPE OF A DISEASE**. This is the combination of prominent and characteristic symptoms, which are said to be typical of a prevalent disease, such as fever, &c., marking with more or less distinctness all the cases.

**TYPHOMANIA** (Greek *typhos*, stupor, and *mania*, madness). An affection consisting in perfect lethargy of body, with imperfect lethargy of mind, wandering of ideas, and belief of wakefulness during sleep.

**TYPHUS**. A genus of simple continuous fevers, attended with a greater or lesser degree of atony, or exhaustion, throughout their whole course: they are contagious or infectious, and often epidemic, but are most likely to attack debilitated persons, and such as are of uncleanly habits. There are two kinds of Typhus, the *malignant* and the *mild*; the latter is the low nervous, or typhoid fever of this country, which has a

20 days. See *Fevers*.

**ULCER, ULCERATION** (Greek *ulkos*, wound). A solution of continuity in any of the soft parts of the body, either open to the surface, or to any internal cavity, and attended with a secretion of pus. Some kind of discharge, is an Ulcer; and the process of forming this is ulceration. There are various kinds of Ulcers, such as *Cancerous*, *Fistulous*, *Gangrenous*, *Incurable*, *Scorbutic*, *Scrofulous*, and *Simple*. They are also divided into *Local* and *Constitutional*; and into *Simple* and *Specific*. In ulceration the lymphatics are as active as the arteries; and absorb the pus as soon as it is formed, causing thus a disappearance of the natural structure without, as in the case of abscess, anything to supply its place. It is by this destructive process going on between an abscess and the skin, that the latter is laid open to the surface. Wounds in the flesh, if at all deep, are very likely to pass into Ulcers; thus, instead of healing as it is called, by "the first intention," they remain open, discharging pus or matter, and presenting a granulated surface; this we should call a healthy Ulcer, or one tending to heal; if on the contrary there is no appearance of filling up with red granulations, but the hollow rather deepens, and the disorganized tissue comes away in a black or bloody discharge, this is an unhealthy, or sloughing Ulcer, and if not changed in its nature, will penetrate more and more deeply, and will either reach some vital part, or kill the patient by exhaustion. Where there is not sufficient energy and vitality in the system to resist the process of destruction in the tissues, and build up anew the destroyed parts, a wound is likely to become an Ulcer, and this will assume the latter condition; hence the necessity of giving all the assistance possible to the vital powers, by nutritious food, and tonic and stimulating medicines.

Persons in whom, from age or other cause, the circulation has become sluggish, are those most liable to ulcerations, and that of an unhealthy kind. This may take place in any part of the body, but it most commonly occurs in the legs, which are farthest removed from the great course of circulation. *Ulcerated Legs* are among the most difficult cases that a surgeon has to deal with: he will first insist upon perfect rest, and keeping the limb in a horizontal position as much as possible. When the Ulcer is very foul and dark looking, warm poultices will have to be applied to bring away the slough; when this is accomplished,

marging only pus, a simple water dressing may be sufficient for a time. Should the Ulcer improve under such treatment, this may be continued until the healing takes place. If, however, the granulations, which will begin to fill up the hollow, appear large, pale, and flabby, and not small and red, as they should do, an astringent lotion will be necessary; this may be either of the Sulphates of Copper or Zinc, or Acetate of Lead. Lotions are far better than ointment, as they are more cleanly; the rags wet with them have to be often renewed. If it is really necessary for the patient to get about, in which case the limb should be bandaged, it is, perhaps, best to keep a dressing of Zinc Ointment applied during the day, and wash the unhealthy granulations when the bandage is removed with a Nitrate of Silver, or Sulphate of Copper lotion. It is often desirable, even where rest can be taken, to use the roller bandage, which should be applied from the toes upwards in the manner directed under the head of *Bandages*. Previous to this application the wound, besides the dressing, should be covered with strips of Soap or adhesive Plaster (the former is the best), applied so as to overlap each other some distance above and below the ulcer. If Zinc Ointment does not seem to agree well, try Turner's Cerate, or the Cerate of Lead; in some cases Red Precipitate Ointment, considerably diluted, answers very well. Venice Turpentine, Resin Ointment, and other drawing and irritating applications, are sometimes recommended, but they are decidedly injurious. These are a few hints for general treatment, but individual cases present peculiarities which call for numerous modifications. The constitutional treatment will require great attention; the strength must be supported, and any tendency to inflammation must be kept down by cooling medicines. If there is great pain, so as to prevent sleep, 5 grains of Pill Soap and Opium, or of the Extract of Hyoscyamus, may be given at bed time. Sometimes an Ulcer on the leg opens into one of the large veins, and a serious loss of blood ensues: in this case the limb should be elevated above the body until the hemorrhage can be stopped by pressure and astringent applications.

In cleansing an Ulcer, too much care should not be taken to remove all the pus or matter; it is better to leave some of it on, to protect the tender surface against irritation. If the Ulcer, when bandaged, feels hot and painful, saturate the bandage with

piece of oiled silk over all will prevent rapid evaporation, and greatly assist in this object. It is not always judicious to heal an Ulcer too quickly; if of long standing, it is likely to be an outlet for morbid matter, which, if retained in the system, might cause serious functional derangement, if not fatal disease, such as apoplexy.

*Ulceration of the Bones* sometimes occurs, causing *Necrosis* (which see), and *Bones*.

A stoppage of the menses sometimes produces a *Menstrual Ulcer*, with a secretion of bloody matter, every three weeks or a month; this must be treated by a surgeon, as should also *Syphilitic Ulcers* (see *Syphilis*), *Sinuous Ulcers*, and those caused by the penetration of bullets, and other extraneous bodies beneath the skin. Ulcers from ingrowing nails in the feet sometimes assume a painful character, and are very troublesome (see *Nails*). For *Ulcerated Sore Throat*, see *Throat*, and for other kinds of Ulcers, *Carbuncle*, *Varicose Veins*, &c.

ULMUS CAMPESTRIS. The botanical name of the *Elm* (which see). From this, as well as from the oak, chestnut, and some other trees, exudes spontaneously a peculiar substance, which has been called *Ulmic*; this, according to Berzelius, is a constituent of most kinds of bark; Boullay called it *Ulmic Acid*. Very similar to it is the black matter deposited during the decomposition of Prussic Acid, and called *Azalmic Acid*.

ULNA (Greek *olene*, the cubit). The large bone of the fore arm, so named from its often being used as a measure, under the term ell.

UMBILICUS (Latin for the navel). Hence *Umbilical Cord*, the naval string, and *Umbilical Region*, that part of the abdomen which includes the *Naval*, which see; also *Hernia*, *Infant*, *Trusses*, &c.

UNCIFORM OS (Latin *uncus*, a hook, *forma*, likeness). A bone of the carpus, or wrist, so named from its hook-like process.

UNGUENTUM (Latin for *Ointment*, which see). A popular name for the strong mercurial ointment is *Unguentum*, often corrupted into *Anguintum*, which latter term is also sometimes applied to White Lead ointment. See *Lead*.

UNGUI (Latin for a finger nail). Applied to a collection of pus in the eye, when the abscess assumes a shape like that of a finger nail. See *Eyc*.

UREA. This is a soluble crystalline substance obtained from the urine of men and animals. It has been much employed in continental practice, and is said to increase the secretion of urine in dropsy and anasar-



grains to 30, three times a day.

URETER (Greek *ouron*, urine). The membranous canal which transmits the urine from the kidneys into the bladder.

URETHRA. The canal through which the urine passes from the neck of the bladder to the Glans Penis: it is divided into three portions, viz., 1st, the *prostrate*, which is from 15 to 18 lines in length; 2nd, the *membranous*, from 8 to 10 lines long, united beneath to the rectum, and above approaching to the symphysis pubis, to which it is braced by muscular fibres, called *compressor urethræ*; 3rd, the *Spongy portion*, commencing behind, by the bulb of the urethra, and expanding in front to form the Glans Penis.

*Strictures of the Urethra* are often the result of syphilitic disease; they are either *Permanent*, *Mixed*, or *Spasmodic*; the first arising from an alteration in the structure of the part; the second consisting of the first, with a spasm; and the third arising from local irritation, caused by a bougie, &c. See *Strictures*.

URINE. The fluid secreted by the kidneys, consisting of water, holding solutions of certain animal principles, and a proportion of saline constituents. The chief and most characteristic ingredient is a peculiar principle called *urea*, which is supposed to be the result of the action of the kidneys upon some of the constituents of the blood, probably, as Dr. Prout suggests, from its albuminous matter; when the secretion of the kidneys is suppressed, this urea remains and accumulates in the system, on which it acts as a poison, causing eruptions of the skin, functional derangements, and sometimes symptoms as of narcotic poisoning. With some the theory is that this Urea is a product formed by the used-up tissues of the body; about  $\frac{1}{2}$  an ounce on an average is excreted in the Urine of an adult in 24 hours; where there is rapid emaciation, the proportion is much larger, which favours such a supposition. Uric or Lythic acid is another peculiar constituent of Urine; when in excess, it is deposited in the bladder, constituting the sand or gravel with which so many persons are affected. (See *Calculus*, *Gravel*). In combination with Ammonia, the Urea forms Lithate or Urate of Ammonia.

The ancients believed that the Urine was a kind of extract of animal substances, a true *lixivium*, wherein everything infused in the animal economy was washed away; hence they called it *Lotium*. And true it is

that we may well consider to be waste refuse animal matter, besides various earthy salts, such as lime, magnesia, and soda, all of which are derivable from the blood; with these are combined muriatic, phosphoric, and sulphuric acids. A healthy man secretes in the 24 hours from 35 to 40 ounces of Urine, containing, it may be, from 600 to 700 grains of solid matter; all of which, with the fluid itself, seems to be excreted from the blood, effete matter, which if not withdrawn from the circulation, would render it unfit for vital purposes. This, then, is the office of the kidneys, to abstract from the blood that which has served its purpose in the animal economy, and whose rejection is necessary to healthful existence.

The Urine of a healthy man will be of about the specific gravity of 1-018, unless there is some obvious cause of variation; it will be of a pale straw colour, quite transparent when fresh and warm, and but a little cloudy at the bottom of the vessel when cool; in warm climates, or in hot weather here, the gravity is increased, because so much fluid passes off by perspiration, that the Urine is secreted more from solids. Again, nervous individuals of both sexes, and especially hysterical females, often pass large quantities of pale Urine of a low specific gravity; with them perspiration is, to a great extent, checked, and therefore the urinary secretion is chiefly from fluids.

The chief urinary affections are, 1, *Incontinence of Urine*, which is the involuntary flow of the Urine out of the bladder; 2, *Retention of Urine*, an inability, total or partial, to expel the Urine contained in the bladder; 3, *Suppression of Urine*, which is owing to some defect in the secreting power of the kidneys; 4, *Urinary Abscess*, which is an extravasation of Urine, which may be in three different stages; either the fluid is collected in a particular pouch or cavity, or it may be widely diffused in the cellular membrane, or it may present itself in a purulent form, after having excited inflammation and suppuration in the parts among which it is situated.

For treatment in these cases, and others in which the urinary organs and secretion are involved, (see the above heads, and also *Bladder*, *Kidneys*, *Strangury*, &c., &c).

To medicines which promote a discharge of Urine, the name *Uretics* has been applied; such are Spirits of Nitre, Turpentine, and all those coming under the denomination of *Diuretics* (which see). To the elastic bladders, or bottles, worn by those afflicted with incontinence, the name *Uri-*

made of India-rubber and other collapsible materials, and adjusted to the parts, so as to cause but little inconvenience to the wearer. An instrument used for testing the specific gravity of Urine is called a *Urinometer*.

**UROPLANIA.** Wandering or erratic urine. An affection in which the urine is diverted from its proper course, and conveyed to the salivary glands, the stomach, the ventricles of the brain, or other cavities of the body (see *Urine*).

**URTICARIA** (Latin *urtica*, a nettle). Nettle rash, characterised by blains or wheals, similar to those caused by the sting of the nettle: they are divided into six species—*U. febrilis*, febrile; *U. evanida*, evanescent; *U. perstans*, stationary; *U. conferta*, confluent; *U. subcutanea*, sub-cutaneous; *U. tuberosa*, Tumid Nettle Rash (which see).

The itching or burning sensation which accompanies Nettle Rash and some other diseases is called *Uredo*.

The act of whipping a palsied or benumbed limb with nettles, for the purpose of restoring its feeling, is called *Urtication*.

**UTERUS** (Greek *utera*, the womb). From this root we have the term *Utero-Gestation*. See *Pregnancy*, also *Womb*.

**UVA**, Latin for a grape: hence the term *Uva passa*, a dried grape, or *Raisin* (which see).

**UVA URSI.** The *Arctostaphylos Uva Ursi* of the natural order *Ericaceæ*, a low trailing shrub found in all mountainous districts of the northern hemisphere, both of the Old and New World: the leaves are used medicinally as an astringent, tonic, and diuretic; their more particular action appears to be on the urinary organs; they are especially rich in tannic acid, containing about 36 per cent.; they are chiefly given in chronic inflammation of the bladder, and have to be continued for a considerable time. This medicine is sometimes prescribed in combination with Hyoseyamus, in which combination it is found serviceable in cases of irritation from the presence of calculi in the bladder. The dose of the Powdered Leaves is from 1 scruple to 1 drachm every three or four hours; of the Extract from 5 to 10 grains, as a tonic; of the Decoction from 1 to 2 ounces. This is made by boiling 1 ounce of the leaves in 1½ pint of water till it is reduced to a pint. Dr. Copeland orders an Infusion of this plant with astringents in bronchitis, laryngitis, &c.

**UVULA** (diminutive of *uva*). The pendulous body which hangs down from the middle of the soft palate: it is subject to

becomes both longer and more bulky than natural, or is simply elongated. Under these diseased conditions, it becomes troublesome in deglutition, as well as in speaking; it causes a disagreeable tickling at the root of the tongue, with an inclination to retch, and an irritating and annoying cough. When things have reached this pass, medicines are often of no avail, and the only resource is to remove a portion of the uvula, which must be done by a surgeon. Before, however, excision is resorted to, and indeed before the Uvula increases so much as to render this necessary, astringent gargles and applications should be tried, similar to those recommended for enlarged Tonsils (which see).

A small tubercle situated on the neck of the bladder is called *Uvula vesicæ*.

**VACCINATION** (Latin *vacca*, a cow). Under the heads of *Cow Pock* and *Inoculation* we have already made some remarks upon this subject; a few more observations will be necessary to elucidate it sufficiently for our present purpose. Assured of the manifest advantages conferred on mankind by Dr. Jenner's discovery, the legislature of this country has wisely enacted that every child shall be vaccinated within three months from its birth, and duly qualified persons are appointed in every locality to perform this duty, usually they are the medical officers of the Poor Law Unions, who have a certain fee for each Vaccination, so that any poor person who takes her child can have it done gratuitously. In the minds of many of the lower classes there is a great prejudice against this operation, and they will often risk the legal punishment, due to them for evading the law, rather than submit their children to it; but if they were better informed, they would not so act. There can be no doubt of the comparatively innoxious character of cow pock, and that it does protect the system, to a very great extent, against the infection of small-pox, is equally certain. Those who do take the latter, after a successful inoculation with the former, always have it in a less aggravated form, than those who have not been thus protected; we say always, for the exceptions to this rule are, indeed, very few. The several circumstances necessary to observe the full benefit of Vaccination are these: 1st, The subject must be quite free from fever, or any eruptive disease; 2d, The lymph employed must be taken from common cow pock vesicle which is going through its regular distinctive stages; 3d, The lymph must be taken at the right



days; after the latter time, the lymph becomes so changed in its character, as to become useless, if not absolutely noxious. It sometimes happens that sufficient attention is not paid to this condition, hence there is either a failure, or it results in producing eruptive disease in the child, and strengthening of the prejudice before alluded to in the parents.

It is always best to Vaccinate with virus taken fresh from the arm; but if this cannot be done, small ivory points may be dipped in the pustule, and the matter suffered to dry on them; or some of the virus may be kept between two pieces of glass; both this and the points require to be kept excluded from the air; the latter had better be put into a small, well-corked, or stopped bottle.

Sometimes the scabs which come from the vesicle are preserved in a well-stopped phial, but there is great uncertainty about the action of the virus taken from them. For vaccinating, the surgeon having covered his lancets with virus, makes a slight puncture in the upper part of the arm of the child, just sufficient to draw a very little blood; he then, by moving his lancet backwards and forwards, clears it of virus, which he leaves in the puncture, from whence it is taken up by the absorbents, and conveyed into the circulation, through which it acts on the whole system. If ivory points have to be used, with the virus dried on them, one of them must be inserted into each puncture made by the lancet, and in like manner moved about until it is cleared. When the dried virus is taken from a scab or piece of glass, a drop or two of water will require to be added to the virus to moisten it, so that it can be taken up on the points of the lancets. Should the operation have been successful, small red spots will appear on the arm round about where it was punctured, on the second or third day; these become gradually larger, and on or about the fifth day, circular vesicles are formed; they at first are of a pearly colour, being nearly filled with a transparent fluid which is contained in small cells. On the sixth or seventh days, the vesicles, which have still gone on increasing, become somewhat depressed in the centre. On or about the eighth day they have gained their full magnitude. In the course of a few hours from this a rose-coloured margin begins to be perceived; this is called the *Areola* (which see); it spreads to a considerable distance during the ninth and tenth days, when the part is tender and painful from the

deepens to a purple; then fades, leaving the vesicle broad, and surrounded with a kind of brown crust; this changes to black which is detached or falls off, about the twentieth day, leaving a cicatrix, which should be of moderate size, slightly depressed, and marked with indentations and radiations, corresponding, it is presumed, to the cells of the vesicles. Until about the eighth day after Vaccination, no constitutional effects are observed; then a slight fever sets in, which may, perhaps, last two or three days; this is satisfactory, as indicating that the virus has thoroughly affected the system; this, which is analogous to the secondary fever of small-pox, is often so trifling as scarcely to be noticed.

The general health of children is but slightly affected as a rule, although the extent of the areola and abundant formation of lymph shows that the desired effect is produced; it sometimes happens that a papulous eruption comes out on the body of a child after Vaccination, causing great alarm to the parents, who fear an attack of small-pox; but this is merely an evidence of fulness of habit and delicacy of skin; and that the cow-pock has taken strong hold of the system. It is advisable to give the child some slight aperient on about the twelfth or fourteenth day after Vaccination, and to repeat it two or three times, at intervals of a couple of days or so. Rhubarb and Magnesia will do as well as anything.

It is usual in performing this operation to make three punctures in the arm, at such a distance from each other that the vesicles are not likely to run together; frequently not more than two, sometimes one of these, will become a vesicle, and produce lymph; it is said to be very rare for a patient to enter the Small Pox Hospital in London, who has been Vaccinated, with more than one cicatrix in the arm, showing that it requires more than this to impregnate the system sufficiently with the Vaccine disease. To ascertain whether this has been effectually done, it has been suggested that a second Vaccination should be performed, on about the fifth day after the first, when, if the constitution has been sufficiently affected, a second vesicle will arise which will present much the same appearances as the first, but will go through its changes more quickly, so as to be at its height at the same time as the one previously formed.

VACCINE MATTER. Is generally procured by puncturing the pustule about the ninth or tenth day, and drying the virus which

exudes on bone points or pieces of glass; these may be sent to any distance if properly protected from injury; it is best to keep the points in a bottle closely sealed. When required for use they should be moistened with a little water. It is best not to trust to matter which has been kept long. Some which is fresh and good can always be obtained through the post from the National Vaccine Establishment, London, free of charge, except the postage.

**VAGINA** (Latin for a sheath.) The name given to the canal leading to the exterior orifice of the uterus or womb. See *Generation*.

**VALERIAN.** The root of the *Valeriana officinalis*, of the natural order *Valerianaceæ*, is used medicinally on account of its antispasmodic properties; it has a strong and peculiar odour, to most persons extremely unpleasant, but to cats very attractive, and even, it is said, intoxicating. Its



action is chiefly upon the nervous centres, and it is found useful in dyspnoea, dyspepsia, epilepsy, hysteria, and neuralgia; it also acts as a vermifuge. Its medicinal properties are due to a peculiar volatile oil, which contains Valerianic acid. Various *Valerianates* are formed by this acid, combining its peculiar antispasmodic properties with those of the bases with which it is united; thus we have Valerianate of Quinine, of Iron, Zinc, &c.

The dose of Powdered Valerian Root is from  $\frac{1}{2}$ , to a drachm; of the Infusion, from 1

VOL. II.

to 2 ounces; of the Simple and Compound Tinctures, from 1 to 2 drachms.

The small-flowered Marsh Valerian (*V. Palustris*) possesses the properties of the



above species, but in an inferior degree: it is found in most boggy places.

**VALETUDINARIAN** (Latin *valetudo*, health). One who is weakly, sickly, or out of *Health* (which see), and *Sickness*.

**VALLEY** (Latin *vallis*). The name of a depression of the cerebellum, in which is lodged the commencement of the spinal marrow.

**VALVE** (Latin *valva*, folding door). A close lid affixed to a tube or opening in some vessel by means of a hinge, or other moveable joint, and which can be opened only in one direction: hence a valve is a membrane which prevents the return of fluid in the blood vessels and absorbents; a mechanical agent connected with the circulating system. The valves of the Heart are the *Eustacian*, the *Tricuspid*, and the *Mitral*; those of the Aorta are three in number, termed from their shape *Sigmoid*, or *Semilunar*; those of the Pulmonary Artery are also three, similarly named to the above; those of the veins are, like the two last, half-moon shaped folds of the inner membrane: they are somewhat numerous, occurring in the veins of the head, trunk, and limbs; they are single, in fours, or sometimes three together. See *Arteries*, *Heart*, *Veins*.

**VALVULA** (diminutive of valve). The name of a lamina which ascends behind the tubercula quadragemina, towards the cerebellum; and *Valvulae conniventes*, the



name of the numerous folds observed upon the inner surface of the mucous membrane of the duodenum.

**VANILLA.** The fruit of the *Vanilla Aromatica*, or *V. Planifolia*, a parasitical plant, a native of South America and the West Indies. This fruit has a strong, peculiar, and agreeable odour, a warm aromatic, and sweetish taste; it appears to contain benzoic acid. It is used by perfumers, rectifiers, and distillers, but is principally employed in flavouring sherbets, pastry, creams, and other dishes of the kind, but chiefly chocolate, to which it imparts sweetness and a delicate flavour; it is said to assist the digestion, and to restore the impaired gastric forces; thus it strengthens the stomach, intestines, and heart, gives vigour and activity to the brain and the mental powers; therefore it is recommended to dyspeptic and hypochondriacal persons.

*Vanilla Claviculata*, a native of the West Indies, possessing a bitter taste and agreeable odour, is employed by the natives as an anti-syphilitic, and the juice as a vulnerary.

**VAPOUR** (Latin *vapor*, probably from a verb signifying to depart or fly off). Any liquid expanded into an elastic or gaseous fluid by means of heat; it differs from gas in its want of permanency, for it returns to a fluid state when exposed to a diminished temperature. The process of drawing off moisture by means of heat is termed *Evaporation*. Hypochondriacal maladies, melancholy, spleen, &c., are sometimes called *Vapours*, as are fogs and emanations from most marshy places.

The application of steam or vapour to the body in a close place, as well as the apparatus by which this is effected, is termed a *Vapour Bath*. See *Baths*, also *Inhalation*.

**VAREC.** The French name for burnt seaweed. See *Kelp*.

**VAREX** (Latin *varius*, unequal), a kind of knotty, unequal, dark-coloured swelling, arising from a morbid dilation of veins, or as it is called a *varicose* condition thereof; it is marked by an uneven tumour in the vein which distinctly pulsates; see *Veins*.

**VARICELLA** (Latin *varius*, changeable). The scientific name for *Chicken Pock* (which see). It was formerly described under the name of *crystalli*, from the white shining appearance of the vesicles; the species are *V. lentiformis*, *V. coniformis*, and *V. globularis*; Lenticular, Conoidal, and Globular Varicella, the latter being sometimes called *Hives*.

**VARIOCELE** (Latin *varex*, a distended

vein, and Greek *kele*, a tumour). An enlargement and distension of the blood vessels of the scrotum; a varicose enlargement of the spermatic veins is called *Cirsocele* (which see).

**VARIOLA** (Latin *varius*). An eruption of pustules which suppurate from the eighth to the tenth day, commonly called *Small Pox*, (which see). This term is sometimes understood to include Cow-Pox and Chicken Pox also. Diseases which resemble Variola are termed *Varioloid Diseases*.

**VARUS** (Latin for a speck, or spot). A pimple eruption, of which there are two varieties, viz., *V. simplex*, and *V. punctatus*, the first being simple pimple, with a broad base, bright red colour, and solid; the second is sometimes called maggot pimple; it is tipped with a black spot, and discharges, on pressure, a grub-like concretion of mucus, like a maggot, if it be not really one, as some believe; see *Sebaceous*.

**VAS** (Latin for a vessel, plural *vasa*) hence we have *Vas deferens* the large excretory duct of the testes, *Vasa brevia*, short branches passing from the division of the splenic artery, and distributed to the large extremities of the stomach; *Vasa inferentia*, absorbent vessels which convey fluids into the glands. *Vasa efferentia*, absorbent vessels which convey fluids away from the glands towards the thoracic duct. *Vasa seminalia*, very minute tubes, constituting the parenchyma of the testes. *Vasa vasorum*, very minute nutrient vessels, which supply the arteries and veins. *Vasa preaparatia*, a term applied by old physiologists to the corpus pyramidale, and the spermatic artery, from their tortuosity and tendril-like form; they supposed that the blood here began to be changed into semen. *Vasa vorticosa*, the external vessels of the choroid membrane, which are very numerous, and being disposed like stars, have been so named.

**VASCULAR SYSTEM** (Latin *vascularis*, from *vas*, a vessel). That part of the animal economy which relates to the vessels, such as the *Arteries*, *Lymphatics*, *Veins* (which see).

**VEAL.** This is an indigestible meat, which if eaten at all by invalids, should be hashed or stewed: the broth made from it, owing to the quantity of gelatine which it contains, is well adapted to the purposes of nutrition, and suits weak stomachs remarkably well; if it be freed from fat, thickened with pearl barley, and flavoured with a little lemon peel, it makes a most agreeable and strengthening kind of food. As generally taken, roasted, with a quantity

of melted butter, it is suited only for the strongest and healthiest persons, scarcely, indeed, for them. An eruption of spots, giving a veal-like appearance to the skin, is termed *real skin*. See *Skin Diseases*, *Vitiligo*.

**VEGETABLES.** Some there are who contend that these should constitute man's only diet; but we have not yet seen sufficient grounds for the adoption of such an opinion; on the contrary, it seems to us that the human system can scarcely be properly built up and nourished without a due supply of animal food, and that man was meant to eat this kind of food appears plain from the structure of his teeth, and the instinctive desire which he has for it.

By the term Vegetables, we generally understand those edible products of vegetation which are not comprised under bread, corn, nor fruits; they are useful for the large quantity of saline ingredients which they contain, and many of them are extremely nutritious, but by weak stomachs they are not so easily digested, as properly cooked tender meat, and bread, which articles of diet more nearly resemble the composition of the human body, and therefore require a less complicated process of digestion and assimilation than Vegetables, for whose particular qualities see such heads as *Cabbage*, *Potatoes*, *Turnip*, &c.

**VEINS.** These are the vessels which return the blood to the auricles of the heart, after it has been circulated by the arteries through the various tissues of the body. They are much thinner in substance than the arteries, so that when emptied of their blood, they are flattened and collapsed. Under the head of *Circulation* we have already explained the difference between the offices performed by the *systemic* and the *pulmonary* Veins, the former of which convey the dark-coloured and impure, or *venous* blood, from the capillary system to the right auricle of the heart; and the latter transmit the vital blood, after it has been oxygenated by contact with air, in the lungs, from thence to the left auricle of the *Heart* (which see).

Arteries, then, we may understand, are the channels through which blood passes from the heart to the various parts of the body; Veins, those by which it returns to that organ, and to the lungs, to be purified, and again rendered fit for its vital purposes. These two different channels of circulation do not communicate directly with each other, but are connected by the minute branches which they each throw out, and which are called *Capillaries* (which see);

these ramify all through the extremities, and all over the surfaces of the body, conveying arterial, and taking up venous blood, which is passed into the smaller veins, thence into the larger, and so proceeds upward to the great fountain from which it set out, constantly receiving fresh accessions from the tributary Veins which pour into the main channels on every side. Thus, as Wilson tells us, "The Veins commence by minute radicles in the capillaries, which are everywhere distributed through the texture of the body, and converge to constitute larger and larger branches, till they communicate in the main trunks which convey the venous blood directly to the heart. In diameter they are larger than the arteries, and, like these vessels, their combined area would constitute a hollow cone, whereof the apex is placed at the heart, and the base at the surface of the body." It follows from this arrangement that the blood, on returning to the heart, is passing from a larger to a smaller channel, and therefore that it increases in rapidity during its course. Veins admit of a threefold division, into *Superficial*, *Deep*, and *Sinuses*.

*Superficial Veins* return the blood from the integument and superficial structures, and take their course between the layers of the upper fascia. They then pierce the deep fascia, in the most convenient and protected situation, and terminate in the

*Deep Veins*, which are situated among the deeper structures of the body, and generally in close proximity with arteries: in the limbs they are enclosed in the same sheath with these vessels: these return the blood from the capillaries of the deep tissues.

*Sinuses* differ from these Veins in their structure, and also in their mode of distribution, being confined to special organs, and situated within their substances. The principal venous sinuses are those of the *dura mater*, *diploe*, *cancellus* structure of bones, and *uterns*.

Veins, like arteries, are composed of three coats, external, middle, and internal. The *external coat* is the thickest, increasing in degree from the smallest to the largest one, the former gradually diminishing until it is lost altogether, and nothing remains but the one coat in the capillary. In the *middle*, or *contractile coat*, which is thinner but finer than the outer, the chief remarkable feature is the presence of longitudinal as well as transverse fibres, the former consisting of closely reticulated elastic tissue, occurring in layers, and alternating with the circular layers, composed of smooth,



muscular fibres, interspersed with areolar tissue, and fine elastic fibres. The *internal coat*, stronger than that of the arteries, is composed of an epithelium and an elastic membrane, between which is situated a striated nuclear lamella.

These membranes and tissues undergo considerable changes and modifications, in accordance with the size and necessary strength of the Veins, which more frequently communicate with each other than do the arteries; these unions are called *anastomoses*, and their object is evidently to obviate the obstructions to which Veins are particularly liable, from the thinness of their coats, and their inability to overcome much impediment by the force of their current.

One very remarkable feature of Veins is their numerous *valves*, which are composed of a thin stratum of nucleated areolar tissue mingled with fine elastic fibres, and coated on the two surfaces with fine elongated cells; the segments, or flaps, of these valves are semi-lunar in form, and arranged in pairs, one on either side of the vessel generally, but sometimes there is a single flap which has a spiral direction, and occasionally there are three. The free border of the valvular flaps is concave, and directly forwards, so that while the current of blood is permitted to flow freely towards the heart, the valves are distended and the current intercepted, if the stream from fulness of the Veins above, or other causes, should turn back. When we consider that the course of the venous current is upward, and so opposed to the law of gravitation, we shall see at once the wisdom of such an arrangement. At Vol. I., p. 366, will be found a cut of a valve of the heart, which will give a good idea of the general conformation of those of the Veins; in those of the extremities, particularly the deeper ones, they are most numerous; in the portal and cerebral, and very small veins, and those of the viscera, they are generally absent, and altogether so in the large trunks.

Our readers may now perhaps understand why in *Bleeding* (which see) a bandage is tied round the arm *above* the spot where the Vein is to be opened. Were the flow of venous blood downward from the heart, this would to a certain extent prevent its reaching the point of egress; but being upward, the obstruction above that point, arrests and causes it to seek an outlet, which it finds in the opening made by the lancet; it also gives greater prominence to the Vein, and renders it more obvious to the operator. We may learn from this that, in order to arrest the flow of blood from an artery, we must apply

pressure between the bleeding point and the heart, or trunk of the body; to arrest the flow from a Vein the reverse must be done. We may distinguish the venous from the arterial blood, by the dark colour, and even flow of the former, and the bright red tint, and jerking mode of egress, of the latter. The artery pulsates; the Vein does not (see *Arteries*).

The Latin for Vein is *Vena*: hence the designations applied to the principal ones, such as *Vena Cava Superior*, or *Descendens*, and *V. C. Inferior* or *Ascendens*, the grand trunk which transmits the blood from the head, neck, upper extremities, and part of the thorax to the heart; and that which extends from the articulation of the 4th and 5th lumbar vertebrae to the right auricle of that organ; *V. Portæ*, the large trunk which extends along the groove of the liver; and *V. Arteriosa*, the Portal Vein, so called because it ramifies like an artery, and conveys blood for secretion; also *V. Basilica*, the Royal, or large Vein of the arm, and *V. Median*, a branch of which is generally opened in *Venesection*, or *Bleeding*. It would answer no good end to particularize more of the greater or lesser members of the venous system; they are, as may be supposed, very numerous.

*Inflammation of the Veins* is one of the most dangerous affections with which the surgeon has to contend; it may be caused by a wound, or by the inflammation spreading from the subjacent tissues; in this we have a red and angry appearance of the part about the vessel, which is hard and painful. The application of warm fomentations, with constitutional treatment, as recommended under the head *Inflammation*, must be the mode of procedure in this case, which should be placed as soon as possible under the care of a medical man.

*Varicose Veins* are not uncommon in the legs of stout elderly females, and may be met with in those of all ages, and both sexes. In this affection there is enlargement of the vessels, which stand out from the surface of the limb, like cords, like which too, they often assume a knotted appearance. This affection may be attributed to obliteration, or deficient action of the valves of the Veins of the leg, or some other cause of obstruction of the flow of blood upward, through those of the abdomen. Pregnancy, habitual costiveness, liver disease, abdominal tumours, may be all mentioned as exciting causes. The pressure of a truss, or belt also, or of garters too tightly tied, may bring on this varicose condition of the Veins, especially in persons whose occupation necessitates

much standing. Great care should be taken to avoid a scratch, or contusion of the swollen part, or a wound may be produced, which is likely to result in an ulcer very difficult to heal. The part should be supported and protected by a bandage, or elastic stocking; if the former, it should be very carefully and evenly applied, as described under the head *Bandages* (see vol. I., p. 76), but a well fitting stocking of elastic web is the best and most convenient.

**VELUM** (Latin for a Veil). Hence *V. interpositum* and *V. palati*; the 1st being a vascular membrane which connects the choroid plexuses of the brain; and the 2nd, the partition which separates the mouth from the palate; it is commonly called the soft *Palate* (which see).

**VENEREAL DISEASE.** See *Syphilis*, &c.

**VENISON.** The flesh of the deer. This, like that of other wild and hunted animals, is easy of digestion; and there can be little doubt that the practice of letting it hang a long time before cooking renders it more so. According to Dr. Beaumont, who compiled a table of the digestibility of various articles of food, Venison steak occupies one hour and thirty-five minutes in the process of digestion, while beef-steak requires three hours.

**VENTRICLE** (Latin dim. of *ventor*, the stomach. A term applied, 1st, to four cavities of the *Brain*; 2nd, to two cavities of the *Heart* (which also see), and *Circulation*.

**VENTRILQUIISM** (Latin *ventor* and *loquor* to speak). Speaking as it were from the stomach; that the Ventriloquist really did this, and not, as is the fact, from the throat, the ancients appear to have believed. The art is said to consist in first drawing a long breath, so as to fill the lungs with air, and then employing, during expiration, such organs of voice as can be moved with as little movement of the lips, mouth, and cheeks, as is compatible with the pronunciation of certain words or sounds.

**VERATRIA.** The alkaloid discovered in the *Veratrum Album* or White Hellebore (which see); also in *Sabadilla* (which also see). In the Meadow Safron (*Colchicum Autumnale*) this substance appears also to exist in combination with gallic acid.

*Veratria* is a deadly poison; it acts as an emetic and purgative, and is sometimes given in rheumatism, and as a stomachic in nervous affections, in doses of from  $\frac{1}{2}$  to  $\frac{1}{4}$  of a grain. It is, however, chiefly employed as an external irritant in neuralgic and rheumatic affections; the form of application being a liniment or ointment; 2 grains to 1 drachm of Aromatic Spirit of Ammonia,

and 1½ ounces each of Spirit of Camphor and Soap Liniment, is a good form for the former; and 4 grains, dissolved in about 6 drops of alcohol, and rubbed down with  $\frac{1}{2}$  an ounce of Lard, for the latter. This has been found serviceable in sciatica, rubbed in every night with a horsehair glove, until tingling is produced. See *Hellebore*.

**VERDIGRIS** (French *verde* green, and *gris* grey); applied, on account of its peculiar greyish green colour, to the Diacetate of Copper, which is much used as a pigment in several processes of the chemical arts, although rarely in medicine. Like all preparations of copper, it is highly poisonous. It is this which forms on the surfaces of utensils made of this metal, when exposed to the action of any acids, and renders them, in cookery, very dangerous, without extreme care. See *Copper*.

**VERJUICE** (French *verjus*, literally green juice). An acid liquor, obtained from crab apples, sour grapes, &c., used in sauces, ragouts, &c.; and also in astringent poultices; for the latter purpose, it is not superior to common *Vinegar*, (which see), or to acetic, or pyroligneous acid:

**VERMES** (Latin for a worm). From this term we have *Vermicelli* a kind of wheaten paste, manufactured in Italy, in the form of long slender tubes, or threads, and so named on account of its worm-like appearance; it is like macaroni in substance, the only difference being that the latter is made into larger tubes. Both of them are prepared in the greatest perfection in Naples, where they form the principal food of the inhabitants. They are used in this country for thickening soups and made dishes, and are served up with cheese and seasoning; they are only unwholesome in so far as the cheese or butter make them so. *Vermiform* (wormlike) is a term applied to two processes of the brain. *Vermifuge* that which expels *Worms* (which see, and *Anthelmintics*). Infestation of the skin by parasitic animalcules is called *Vermination*.

**VERONICA** or **SPEEDWELL.** This, one of the commonest and prettiest of the wild plants of Britain, is the *Veronica Officinalis* of botanists (fig. 1) belonging to the natural order *Scrophulariaceæ*; its leaves have a slightly bitter, warm, and astringent taste; they are supposed to contain tannin, and have the reputation of being sudorific, diuretic, tonic, stomachic, and expectorant; they are, however, not often used medicinally. In Sweden and parts of Germany they have been taken as a substitute for tea. Several plants of this genus enjoyed a good reputation for the cure of diseases in former



times; among them was the Ivy-leaved

in our corn fields, and is sometimes termed Ivy-leaved Chickweed.

VERRUCA (Latin for a *Wart*, which see).

VERTEBRA (Latin *verto*, to turn). A bone of the spine, so named from its turning upon the adjoining one. See *Spine*.

VERRIGO (Latin *vertix*, or *vortex*, a whirlpool). Dizziness, or a fear of falling. See *Giddiness*.

VERU MONTANUM (Latin for a little eminence). Applied to such in the urethra, at the termination of the *ductus ejaculatorius*: it is sometimes called *Caput Gallinaginis*, or the Woodcock's head. See *Urethra*.

VERVAIN. The *Verbena Officinalis*, of the natural order *Verbenaceæ*, a common wild plant in this country; once held in high reputation for medical, and even magical virtues, to which honour it has little real claim; it is feebly astringent, and is sometimes used to make a collyrium, said to be useful in infantile ophthalmia.

VESANIA (a Latin term for madness). Applied by Cullen to an order of cases in which the judgment is impaired without stupor or fever. See *Madness*, &c.

VESICA (Latin for a bladder). A blister or elevation of the scarf skin, containing clear fluid. Several eruptive diseases are of this form; glass pock is so, and cow pock in its first stage, afterwards it becomes pustular. From this root we have *Vesicula*, a little bladder, applied to the *vesiculae seminales*, two small reservoirs situated beneath the bladder, which secrete a peculiar fluid; and *Vesicles of Naboth*, a name given to the follicles in the interior of the *cervix uteri*, which sometimes become transparent, and filled with viscous fluid.

VESICATORIUM, or *Vesicatory*, is a blister or epispassic, produced by an external application. According to Dr. Paris, it acts, 1st, as a *derivative*, by producing a derivation of the circulation from the inflamed and congested vessels of the neighbouring organs to the blistering surface; 2nd, as an *evacuant*, by occasioning an effusion of fluids, at first serous, then purulent; 3rd, as a *general stimulant*, by raising the vigour of the circulation; 4th, as an *antispasmodic*, by relieving pain through the medium of continuous sympathy. See *Blister*.

VESTIBULE (Latin *vestibulum*, a threshold). A cavity of the internal ear, so named from its forming an entry to the cochlea and semicircular canal. See *Ear*.

VIABILITY (Latin *vivo*, to live). The state of a child that is *viable*, or likely to live. This is a term adopted from the French, and applied to a new-born infant to express its capability of sustaining an in-



Fig. 1.

Speedwell, here figured (fig. 2). Botanists



Fig. 2.

call it *Veronica Hederæfolia*; it is common

dependent existence. Hence, when a foetus is sufficiently developed to live, it is said to be *viable*.

**VIBEX** (Latin, plural *vibicēs*), applied to the large purple spots which appear under the skin in certain malignant diseases.

**VIBRISSA** (Latin *vibro*, to quiver). The hair which grows in the nostrils; see *Hair*.

**VIDIUS**. The name of a French Medical Professor who was physician to Francis 1st, and in compliment to whom the terms *Videan* has been applied; 1st, to the *foramen pterygoideum*, a small hole in the petrous portion of the temporal bone; 2nd, the pterygoid artery; 3rd, a portion of the fifth pair of nerves.

**VIGAN'S ELIXIR**, an old name for the sweet Elixir of Vitriol, or *Spiritus Etheris Aromaticus*.

**VILLUS** (Latin for a soft hair). Hence, in anatomy, the *Villi* are small fibres, resembling a covering of down, or the pile of velvet, which are seen in the internal coat of the intestinal canal; this is called the *villous* coat of the intestines; these *villosities* as they termed, are continually covered with mucus.

**VIOLET**. The *Viola Odorata*, of the natural order *Violaceæ*, is too well known to need any description here; its delightful

would probably be produced by the strong odour of any other flower, acting upon a morbidly excitable state of the nervous system. The Violet flowers are used medicinally on account of their demulcent and mildly laxative properties; in large doses they are emetic. The usual form of preparation is Syrup, of which from 1 to 2 drachms may be given to infants for coughs and tightness of the chest. Mixed with Almond Oil, and Syrup of Senna, it makes an excellent demulcent and aperient medicine. The root of the Violet is emetic, in doses of a drachm and upwards.

A highly poisonous alkaloid called *Violine* has been extracted from all parts of this plant; it is said to be similar to the Emetin of Ipecacuanha.

**VIPER**. This is the *Vipera Berus* of naturalists, the only poisonous reptile indigenous to this country; the fat of it was formerly in high repute for making ointment, and country people yet often ask at the druggists for Viper's Oil, using the olive, or any other oil which may be substituted for it, to make, combined with "Oil of Brick," and a variety of other ingredients, a liniment for rheumatic affections, spasms, &c., they often find, too, that faith and friction together do wonders, but it is the fat of the reptile which has most of the credit. Country people think, too, that for the venomous bite of the Viper, or adder, as it is often called, there is nothing so good as the creature's fat rubbed over the wound; that any fatty matter rubbed gently and persistently into the bitten limb in this case is beneficial there can be no doubt; for the faintness which affects those who have met with this accident, repeated small doses of Brandy should be administered, or Sal Volatile, or some other stimulant, to rouse the system to repel the torpidity caused by the poison; mustard poultices may also be applied to the feet, calves of the legs and the spine, and warm poultices to the limbs, which will probably be much swollen, and very painful. Persons have died from the effects of a Viper bite, but this has not often happened; in the majority of cases they recover, if proper means are used.

**VIRUS** (Latin for poison, probably from the same root as *vir*, *virco*, the idea being strength to overcome.) This is the term applied to the active, or contagious matter of a pustule, &c.: in the language of pathology, any matter which is the product of a disease, and is capable of producing the disease in a healthy individual by means of inoculation or absorption through the



fragrance has been said sometimes to cause convulsions, apoplexy, and even death; but this is an absurdity. That the perfume of the Violet will sometimes have a peculiar effect upon the nerves of extremely sensitive persons, and cause faintness and giddiness, there is no doubt, but this effect



vaccine, is called the *virus* of that disease, so we call the lymph which is used to inoculate for cow-pock *Vaccinæ virus*.

**VIS** (Latin for force or power). Hence we have the terms—1st, *Vis a tergo*, force from behind, applied to the force communicated from the ventricles of the heart to the blood in the arteries, capillaries, and veins; 2nd, *Vis inertiae*, inertness, or the principle of inactivity, by which a body remains in the same state of rest or motion, unless obliged to change it by some fresh impulse derived from an opposing force (see *Inertia*); 3rd, *Vis insita*, the name given to the irritability of the muscular fibre, arising from the action of a stimulus: some have called this *Vis vitalis*, and applied the term *Vis nervæ* to the energy or power of feeling (see *Irritability*); 4th, *Vis medicatrix naturæ*, a power supposed by Cullen to preside over the living body, and to possess a faculty of resisting to a certain extent the effects of disease; 5th, *Vis mortua*, that property by which a muscle contracts, after the death of the animal to which it belongs, or after having been cut from the living body; 6th, *Vis vitæ*, the natural power of the animal body in resisting disease and preserving life.

**VISCUS** (Latin for a bowel or intestine). The plural of this term is *viscera*, and it is applied to the entrails or intestines, and indeed to all the organs which lie within the thorax or other cavity of the body, especially the *Stomach* (which see). Hence any diseases which affects these organs, or aught pertaining to them, is termed *Visceral*. The Mistletoe, a plant formerly supposed to be good for epilepsy, and the berries of which are made into the sticky substance called bird-lime, is known to botanists as *Viscum Album*; hence any substance which is glutinous, sticky, or adhesive is called *Viscid*, or *Viscous*; such as tar, pitch, balsams and fluid resinous gums, and the mucus which chokes the bronchial passages in some conditions of diseases.

**VISUS FORMATIVUS** (Latin for a formative effort). A principle similar to gravitation, applied by Blumenbach to organized matter, by virtue of which principle, every separate organ is endowed, as soon as it acquires structure, with a *vita propria*, or proper life of its own.

**VISION** (Latin *video*, *visus*, to see). The faculty of seeing, or the perception of external objects, as conveyed to the brain by means of the organs of *Sight* (which see, and *Eye*).

**VITELLUS**. Latin for the yolk of an *Egg*, (which see.)

**VITILIGO** (Latin *vitulus*, a calf.) An affection in which the skin presents a veal-like appearance; it consists of white, shining, smooth tubercles about the ears, neck, and face, terminating without suppuration. *Alphos*, *Leuce*, and *Meals* are varieties of the disease, which deeply affects the skin, and subjacent structures, occasioning a loss of sensibility, and ultimately of vitality in those parts. See *Skin Diseases*.

**VITREOUS BODY** (Latin *vitrum*, glass.) A transparent mass, resembling melted glass, occupying the globe of the eye; it is commonly called the *Vitreous Humour*.

**VITRIOL** (Latin *vitrum*, glass.) This term originally denoted almost every crystalline body; but it afterwards came to have a more restricted application, viz., to Sulphuric Acid, which was and is still called Oil of Vitriol, and the Sulphates of Iron, Copper, and Zinc, which are respectively called Green, Blue, and White Vitriol. The term *Vitrum* is applied to several glassy substances, such as Glass of Antimony, and in the preparation of Tartar Emetic.

**VOICE** (Latin *vox*.) An audible noise produced in the throat and month by the action of certain *vocal organs*. Most animals have the power of producing it, but few, except man, can utter *articulate* sounds, viz., those of which several conspire together, to form a system of sounds or words expressive of ideas. The infinite varieties of sounds heard in the human voice are all produced by certain modifications of movement in the vocal organs, the chief of which is the *Larynx* (which see.) This partakes of the nature both of a wind and a stringed instrument. A good musical voice depends chiefly upon the soundness and power of the organs of utterance, and of hearing, and the musical disposition, and is distinguished by clearness of intonation, ease, strength, duration, harmoniousness, and fulness of the sounds. Remarkable changes take place in the voice under some circumstances of disease; thus in decay of the lungs we have a deep hollow sound; in Asiatic cholera, a shrill treble; in croup and inflammatory affections of the bronchial passages, a hoarse kind of crow, often with a shrill reverberation; and sometimes there is an almost total loss of voice. See *Aphonia*, *Croup*, &c.

**VOLATILITY** (Latin *volo*, to fly). A property of bodies by which they are disposed to assume the state of vapour, or fly off. Most of the essential oils are extremely volatile; so is Camphor, which is in fact a concrete oil; and so are all strong spirits.

**VOLTAIC PILE.** A galvanic apparatus, consisting of plates of zinc and silver, and pieces of moistened woollen cloth, piled in regular order, thus, zinc, silver, cloth, and so on for 20 or more repetitions. See *Electricity, Galvanism*.

**VOLUNTARY MOTION.** See *Motion*.

**VOLVULUS** (Latin *volo*, to roll up). A disease produced by the passing of one portion of the intestine into another, commonly the upper into the lower part. See *Bowels, Intestines*.

**VOMER** (Latin for a ploughshare). A bone of the nose, forming the partition between the nostrils, and so called from its resemblance to the above-named agricultural implement. See *Nose*.

**VOMICA** (Latin *vomo*, to spit up). An abscess of the lungs; so called from its discharging a serous, foetid matter, termed *Sanies* (which see).

**VOMITING**, the act of throwing up, or attempting to throw up, the contents of the stomach; it consists of a forcible contraction of the muscles of expiration, and of these only, the glottis being closed, and the cardia opened. It was thought at one time that Vomiting depended upon a convulsive action of the stomach alone; then came the theory that the stomach was passive in the act, which was attributable to the pressure of the muscles of the belly excited to violent action; but we are now quite convinced that both these exciting causes of Vomiting operate at the same time.

Although Vomiting is generally preceded by nausea, yet this is not always the case; infants frequently relieve their stomach of an over quantity of food without showing the slightest signs of distress, which would not be the case if they *felt* sick, as well as were sick, as the phrase generally goes. In the Vomiting which not unfrequently attends coughing, sobbing, &c., there is also commonly an absence of the sensations of nausea. The causes of Vomiting are numerous: poison, medicines, indigestion, excess of bile, or mucus, in the stomach or bowels; a mechanical excitement of the muscles of the gullet, as with a feather, finger, &c.; hiccup, sobbing, laughing, the motion of a ship in the water. Anything which is repugnant and offensive to either of the senses; mental emotion; a sudden blow or shock to the system. (See *Nausea, Sickness*).

An ineffectual attempt to vomit is called *Vomituritus*. See *Retching*.

**VULPIS MORBUS** (Latin for fox, and death or disease.) Literally fox disease. Applied to the decay and fall of the hair,

because the fox is said to lose its hair sooner than any other quadruped. This is, of course, an erroneous notion. See *Alopina, Baldness*.

**VULVA** (Latin for valve.) A name given to the pubendum, or external parts of the female generative organs. A small aperture of the brain, forming the part by which the three ventricles communicate, is termed *vulva cerebri*.

**WANT'S POWDER.** A once popular remedy for gout and rheumatism, it consists of the powdered bulb of Colchicum, mixed and disguised with other inert ingredients.

**WARE'S GOLDEN OINTMENT.** An ointment recommended for ophthalmia and ulcers, consisting of Fresh Butter, 1 ounce rubbed down with 1 drachm of the Nitrated Oxide of Mercury; the Red Precipitate Ointment of the Pharmacopœia has precisely the same properties.

**WARD'S PASTE.** A popular remedy for piles, now nearly superseded by the Confection of Black Pepper of the Pharmacopœia, which is similar to it in composition. See *Pepper, Piles*.

**WART.** This is an excrecence from the cutis or outer skin, or a horny tumour formed upon it; it is not generally so painful as it is disagreeable and unsightly, coming nearly always upon the hands, or some other conspicuous place. The best treatment is to touch it with some caustic, or escharotic. Nitrate of Silver is the most effectual, but this turns the skin black, which is in many cases very objectionable. Caustic Potash will answer the purpose, so will Acetic Acid if of extra strength, and Nitric Acid. The application should be made daily, and the decayed part pared off, or cut with scissors. If it can be conveniently done, a ligature of silk tied tightly round the base of the wart will cause it to decay, and eventually drop off. Some of the acrid vegetable juices, such as those of Celandine and Spurge, are popularly used as a cure for warts; but the favourite method is to have them "charmed away." Without pretending to account for the marvellously quick disappearance of these troublesome excrecences, which sometimes takes place under the charming process, we must express our disbelief in its efficacy. The scientific word for a Wart is *Ferruca* (which see).

**WASHERWOMAN'S SCALL.** A species of scall which sometimes appears on the arms and wrists of washerwomen; it is occasioned by the irritation of the soap, and is scientifically termed *Psoriasis lotorum*. The best treatment is emollient applications, and



time. WATER is one of the great necessities of existence, and an agent in the prevention, relief, and cure of diseases; the importance of Water can scarcely be estimated; it may be no matter of surprise, therefore, if we devote some space to an elucidation of its nature, properties, and effects upon the human system. By the old chemists, Water was regarded as a simple element, but we now know it to be a compound substance, consisting of hydrogen and oxygen, in the proportion of two volumes of the former to one of the latter gas, making it, in fact, a protoxide of hydrogen: when pure, it is transparent, colourless, inodorous, tasteless; but owing to its extensive powers as a solvent, we seldom meet with it quite so; it is generally found holding earthy matters in a state of mechanical suspension, or of chemical solution, but the nature and degree of its contamination must necessarily vary, according to circumstances and situation. These impregnations, however, are not generally sufficient to give it any very sensible taste or odour, or to render it unfit for the ordinary purposes of life. All the varieties of common water may be arranged under the three heads, Rain Water, Spring Water, River Water.

*Rain Water*, when collected away from the contamination of towns, and before it reaches the earth, is undoubtedly the purest; it has the least specific gravity of any; but collected, as it generally is, from the roofs of houses, it contains a portion of sulphate of lime, soot, and other impurities, and should always be boiled before it is taken into the human system.

*Spring Water*, in addition to the foreign substances above named, has generally a small portion of common salt, and frequently other salts. The larger springs are purer than the smaller ones, and those which occur in siliceous rocks, or beds of gravel, contain the least impregnations, being sometimes nearly as pure as the purest Rain Water. When it is obtained by digging to a considerable depth, as in wells, it is not so pure, being commonly distinguished by a property called *hardness*, which implies an incapacity for dissolving soap, owing to its containing lime and other earthy salts, the best mode of freeing it from which is first to boil it; then, after it has cooled, to drop into it a little Carbonate of Soda, and filter it. That hard Water has a tendency to produce disease in sheep and other animals, is an acknowledged fact; instinct teaches them to avoid it, if they can

get any other. The scrofulous swellings and gravel which prevail in some districts have been attributed, and with good reason, to the hardness of the Water there.

*River Water*, if the stream be rapid, and runs over a pebbly or siliceous bed, may be as pure as the softest spring Water; but when the current is slow, and the bed clayey, it approaches nearer to well Water, in its composition, and there are generally impurities added, inseparable from its exposed condition, rendering it liable to receive decaying vegetable, and other matters: in the Water of lakes and marshes there is, necessarily, much of this; it is, therefore, unfit for drinking.

With regard to the use of Water as an article of diet, we may observe:—

*First*, it may be taken in too large quantities to be carried off by the skin and other excretory organs, and then it remains in the system to impoverish the blood, and to reduce the amount of solid matter that is necessary for the performance of the functions of the tissues of the body. This is one of the results that sometimes take place from what is called the Water cure (see *Hydrotherapy*); unless persons have sufficient vigour to take the exercise necessary to throw off by the skin the Water that is taken into the stomach, serious ill effects must necessarily arise. The good that is effected by this system of the treatment of disease must be attributed more to the exercise that it renders necessary, than to the unnatural quantities of Water that are taken into the system.

*Secondly*, Water may not be taken in sufficient quantities to carry on the healthy functions of the system. If the food is taken too dry, it is only imperfectly digested, and many important constituents, such as the salts, are not taken into the body in sufficient quantity. A deficient quantity of Water in the blood will also prevent the healthy process of nutrition, and wasting and degeneration of the solid parts of the body will occur. It would be difficult, perhaps, to lay down any law with regard to the quantity of Water individuals should take, and, perhaps, it is safer to rely on the instincts of the body, which seem to point out how much we ought to take by the feeling of satiety that comes on after enough has been taken. We may, however, get at something like an approximation of the proportion of solids and fluids required by the system in food, by examining the composition of milk in which we find the proportion of Water to solid parts as 870 to 130 in 1000 parts, or about as 7 to 1.

*Thirdly*, The good effects of Water may be destroyed by the substances with which it is taken. Although the stomach has the power of separating Water from the food in which it exists, it yet often happens that the fluid articles of diet are injurious. Water itself may contain so large a quantity of saline matters, or of organic matters in a state of decomposition, as to cause serious diseases. The habitual taking of Water in the form of fermented liquors, as beer and wine, as also the admixture of distilled spirits, may cause irritation and congestion of the mucous membrane and derangement of the nervous system.

On the whole it appears that for the human system in a state of health, there is no such proper and wholesome drink as Water; that is, after the period when solid food can be taken; during infancy, of course, milk is required. Water does not tempt the appetite to indulgence in more than is necessary to quench thirst, and unless the taste is vitiated by other beverages, it is the most grateful drink that can be offered to the palate.

*The Medicinal Properties of Water* as a diluent, as Dr. Graham observes, are "considerable, and were well known to the ancients; and cold Water, used as a drink in fevers, was the principal remedy of Hippocrates, the father of physic, in those complaints. The temperature of 60° is the proper degree when it is intended that Water should produce its diluent effects without the aid of heat. Under 45° it produces a sedative and astringent effect; above 60°, and under 100°, it relaxes the fibres of the stomach, and is apt to induce nausea; but at a higher temperature the stimulus of heat prevents that effect. Simple Water may supersede the use of all other diluents; but animal and vegetable infusions are generally employed, or Toast-and-water, which is more agreeable to most palates, and is an excellent diluent in fevers and inflammatory diseases. The temperature of Water, as a diluent, should be regulated by the nature of the disease; in internal bleeding it should not exceed 45°, but it may be 60° in fevers, unless in the cold stage of the paroxysm, when thirst should be allayed by tepid or warm Water, or other warm fluids; and the same precaution is necessary, when the sweat has become general and profuse. In cases in which there exists a morbid increase of bile, or of the secretions of the stomach and bowels, disturbing the functions of these organs, the temperature of the Water used to drink may be from 90° to 114°; and

in some cases of indigestion, which are attended with a sensation of cold at the stomach, and with cold extremities, a cupful of Water taken hot, affords very considerable relief. Some medicines, as sudorifics, diuretics, emetics, and refrigerents, can scarcely produce their effects, unless their operation be assisted by copious dilutions of watery fluids." It was formerly the custom to deny fever patients a copious supply of Water, but the practice now is to let them drink as much as they desire; and this is the more humane, as well as beneficial plan.

The Latin for Water is *Aqua*, and under this head will be found more upon the medical uses of this element. See also *Baths and Bathing, Hydropathy. Chalybeate Waters, &c.*

WATER BRASH is a term applied to a discharge of thin watery fluid from the mouth, when the stomach is empty; it comes up about  $\frac{1}{2}$  an ounce at the time, with acid eructations, but without much straining, sometimes to the extent of a pint; it is a symptom of irritable and neuralgic indigestion, or a form of *Dyspepsia* (which see), and also of some of the more malignant diseases of the stomach. Persons who take much oatmeal are peculiarly subject to this affection. Why they are so, has not yet been clearly ascertained.

*Treatment.* Bismuth, a full dose, will generally afford relief; if there is pain, Morphine should be also taken, or some other anodyne. After the water has ceased to flow, some stomachic should be given, with a mineral acid. A mixture like this will be best:—Infusion of Cascarilla, 6 ounces; dilute Sulphuric Acid, 3 drachms; Tincture of Cardamums, 2 drachms: take a sixth part twice a day. Attention should be paid to the action of the liver, before administering these remedies; perhaps a little mild mercurial, such as Blue Pill, or Grey Powder, had better be given in any case, about a couple of doses, combined with Rhubarb.

WATER-CURE. For an account of this mode of treating diseases, which has recently come into fashion, see *Hydropathy*.

WATER DRESSING is simply lint dipped in water—warm, tepid, or cold—as the case may require, and applied to the part affected, with a covering of oiled silk or thin gutta-percha, to prevent evaporation; it is far more pleasant and cleanly than other dressing with ointment, and in most cases of wounds, abscesses, &c., when poulticing is not required, it is found to succeed better.

WATER ON THE CHEST. This is a common term for the disease known to the profession as *Pleurisy* (which see).



**WATER ON THE HEAD.** The effusion of water into the ventricles of the brain, is not uncommon with children under seven years of age. It is said, in five cases out of six, to originate in stomachic and intestinal irritation; it sometimes follows whooping-cough, scarlet fever, or measles, and often proves fatal; children, whose parents are of a serofulous habit, are especially liable to this affection; the continued irritation of teething sometimes produces it; excessive cold applied to the head, suppressed discharge of moist eruptions on the head, &c. See *Hydrocephalus*.

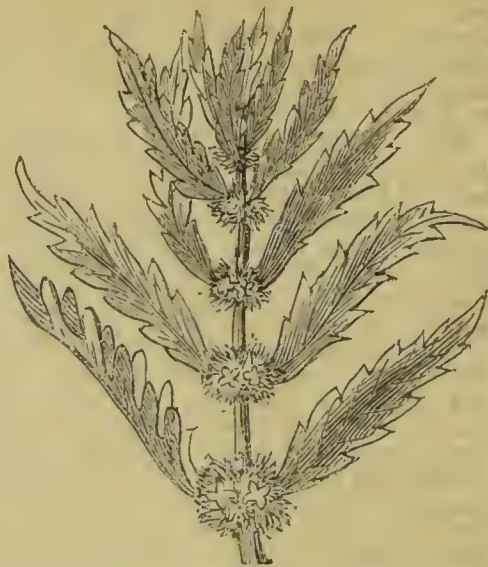
**WATER DOCK (GREAT).** This is the *Rumex Aquaticus* of botanists; a native plant, the powdered Root of which is used



as a dentrifrice, and the Infusion as a wash for scorbutic gums; like the sorrels, to which it is nearly allied, it has strong antiscorbutic properties.

**WATER HOREHOUND.** This plant is common in Britain; it is the *Lycopus Europæus*, of the natural order *Labiata*, and has been long used as a febrifuge; the Powder, in doses of 2 drachms, is said to cure intermittents; it is also considered as an astringent. The Common Horehound, however, which grows abundantly by waysides and waste places, is more generally esteemed for its medicinal properties; it is a good tonic and excitant of the uterine system, and is employed as an emmenagogue, and against nervous affections and hysterics; it has also been prescribed in catarrhal affections of

the chest; in large doses it is aperient. See *Horehound*.



**WAX (German wachs)** An oily concrete matter gathered by bees from plants, for the formation of the cells wherein they store their honey. This is naturally of a yellow colour, but by a process of bleaching, it becomes white. The Latin for Wax is *Cera* (which see). It was formerly employed as an emollient in ulceration of the intestines, but is seldom now given internally. As an external agent, it forms the basis of all *cerates*, and is an important constituent of many ointments and plaisters.

**WEANING.** If a child has cut four teeth, if it is in good health, and its bowels are regular, it should be weaned when nine months old, and without any previous preparation. It should be fed with a spoon on food of biscuit powders, tops and bottoms, or some other farinaceous preparation, made with cow's milk. A delicate child may be kept at the breast until it is a year old, but not much beyond that. If a lately-weaned child is attacked with whooping-cough, or any other severe disease, it may be necessary to give it the breast again; or should a weaned child refuse artificial food, and pine away under the deprivation, a breast of milk should be provided for it, if the family medical adviser deems this desirable. See *Infants, Food*.

**WEB.** The old English name for opacity of the eye, because it seems like a fibre, or Web spread before the sight. See *Eye*.

**WEIGHTS.** Those used in the weighing and dispensing of medicines are termed *Apothecaries' Weights* (which see). By

*Atomic Weights* is understood the definite proportions, by weight, in which different bodies combine. This relation, which is supposed to exist amongst the *Molecules* or *atoms* of compound bodies, constitutes the basis of the Atomic theory, first proposed by Dr. Dalton. See *Atom*.

**WEN.** An encysted tumour, whose seat is the cellular membrane of any part of the body; it is moveable, has a pulpy feel, and varies in size, but seldom exceeds that of an egg. Wens present the following varieties: 1st *Steatoma*, adipose; *Atheroma*, mealy; 3rd *Meliceris*, horned; 4th *Testudo*, horny; 5th Ganglionic Wen.

With regard to the *treatment* of Wens, Dr. Graham observes, that although it is not often any advantage arises from the use of local applications, yet sometimes "a strong stimulant applied frequently to the surface will disperse them, when small and recently formed; and of all stimulants, electricity appears to be the most efficacious. Those who wish to try it may have sparks from the battery, and slight shocks passed through it daily. A very strong solution of salt and water is likewise a powerful stimulant in some cases of Wens, and has been known to bring them away by causing the cyst to open and discharge its contents. The surface of the Wen must be bathed with this solution very frequently every day. No benefit can be expected in less than a fortnight, and sometimes not sooner than a month or two. I am disposed to think this remedy worthy of more attention in these cases than it has yet obtained. The great advantage attending it is, that it gives no pains or inconvenience of any kind. The operation of removing Wens by the knife is attended with much less pain than is generally supposed. See *Tumours*.

**WHEAL WORM.** The *Acarus Autumnalis* or *Harvest Bug* (which see); it is so called from the glassy wheals which its bite produces.

**WHELK.** The name given to an unsuppurative tuberculous tumour, generally occurring in the face. See *Tumour*.

**WHIEY** (in Latin *Serum lactus*). The fluid part of milk which remains after the curd is separated. See *Beverages*, *Milk*.

**WHITE GUM.** A kind of gum rash to which infants are liable, in which the pimples are minute, hard, and whitish, surrounded by a reddish halo; the scientific name is *Strophulus Albidus* or *Tooth Rash*.

**WHITEHEAD'S ESSENCE OF MUSTARD.** This nostrum has long maintained a place in popular esteem, as a remedy for flatulency and other disorders. Dr. Paris says

it does not contain a particle of Mustard; but according to Brande, it contains Camphor, Turpentine, Spirit of Rosemary, and a little Mustard Flour.

**WHITE SWELLING.** A dropsical accumulation within the capsular ligament of a joint, generally that of the knee. See *Housemaid's Knee*, *Hydarthrus*, *Knee*.

**WHITES.** The common or vulgar term for the discharge of a yellowish white mucus from the vagina. See *Leucorrhœa*.

**WHITLOW.** An inflammation at the end of one of the fingers or thumbs, very painful, and much disposed to suppurate. The effusion may be immediately under the skin, or deeper among the tendons; or it may press on the periosteum; this last is the worst, and most malignant form, it is consequently called *Felon*. The excessive pain and irritation which attend a Whitlow, is due chiefly to its situation under the nail, and the thickened skin at the end of the finger or toe, which, from its unyielding nature, confines the inflamed part, and prevent the quick discharge of the matter formed.

Whitlows generally arise from prieks or bruises, or other injuries of a local nature, but with some they occur so frequently, as to prove that they are, in a measure, constitutional.

*Treatment.* The chief point is to soothe and soften the part affected by the free use of warm fomentations and poultices, to render the nail and skin supple, and favour the formation and discharge of the matter. When there is much inflammation, a leech or two may be applied to the swelling; and if the pain causes deprivation of rest, a Calomel and Opium pill, containing a grain of each, may be taken at bed time, and a gentle aperient draught in the morning. If the abscess does not burst of itself, after the above measures, it should be opened with the lancet; the nail should be pared away as thin as possible, and any loose portions of it removed. Warm poulticing should be continued a couple of days, or so after the Whitlow is opened, and then a dressing of simple cerate should be applied, changing it about every eight hours; if this treatment should not suit, use Turner's cerate; or try water dressing. A small blister is sometimes necessary to promote an increased discharge, and give a salutary stimulus to the diseased parts; it may be kept on about twelve hours, and the raw surface, when it comes off, dressed with Spermaceti Ointment. When the Whitlow is seated among the tendons, there is excruciating pain, but little swelling of the affected finger, although there may be of the hand



and wrist, and perhaps of the whole forearm; this requires a free incision made very early, and only a surgeon can treat the case.

It is not advisable to apply caustic to any fungus or proud flesh which may arise in these cases; they will disappear if the wound can be stimulated to healthy action.

**WILDFIRE.** A popular name of an eruptive disease, scientifically called the *Lichen Circumscriptus*, or Clustered Lichen. *Wild Fire Rash* is a species of Gum Rash, in which the pimples are in clusters, or patches, generally flying from part to part; (see *Strophulus*.) Another form of eruptive disease described by Celsus, under the name of *Agria*, is called *Wild Lichen*; scientific name, *Lichen ferus*. See *Lichen Rashes*.

**WILLOW.** The common White or Huntingdon Willow (*Salix Alba*) is, perhaps, more rich than any other member of the



order *Salicaceæ*, although all have it, in the peculiar crystalline principle, called *Salacine*, whose tonic and febrifuge properties are set forth under that head.

**WINE.** Strictly and especially we apply this term to the fermented juice of the grape, but it is generally used to denote that of any sub-acid fruit. "The presence of tartar," says Dr. Graham, "is, perhaps, the circumstance by which the grape juice is distinguished from all the other sub-acid fruits that have been applied to the purpose of wine-making. The juice of the grape, moreover, contains within itself all the

principles essential to vinification, in such a proportion and state of balance as to enable it at once to undergo a regular and complete fermentation; whereas the juices of other fruits require artificial additions for this purpose; and the scientific application and adjustment of these means constitute the art of making Wines. It has been remarked that all these wines, which contain an excess of malic acid, are of a bad quality; hence the grand defect that is necessarily inherent in Wines of this country, which leads them to partake of the properties of cider; for, in the place of *tartaric*, the *malic acid* always predominates in our native fruits. Notwithstanding these differences, the essential components of all Wines are the following:—one or more acids, especially the malic acid and tartaric; *extractive matter*, which in old wines is deposited with the tartar; a *volatile oil*, on which the flavour depends; *colouring matter*, and *alcohol*, or Spirit of Wine, the most important of all the ingredients.

"Wine, when good, and of a proper age, is cordial and tonic; but when new it is flatulent, debilitating, and purgative, and intoxicates sooner than old Wine. In a dietetic point of view, the temperate use of it promotes digestion, and gives additional energy to the action of the heart and arteries, strengthens the animal functions, exhilarates the spirits, sharpens the wit, and calls into action all the intellectual powers; but when taken in excess it intoxicates, producing head-ache, sickness, giddiness, and looseness, with universal tremors, which continue for two or three days; and, like ardent spirits, its habitual excessive use extinguishes the faculties of both mind and body, producing indigestion, emaciation, and debility, inflammation of the lungs and liver, palsy, gout, dropsy, and a long train of diseases and wretchedness. In almost all cases of indigestion, bilious complaints, and other disorders, in which there exists great weakness of the stomach, the white Wines will be found preferable to the red; they sit easier on the stomach, and do not tend to confine the bowels, as the latter do, which are material points, worthy of much attention.

"As a remedy, Wine is stimulant, tonic, and anti-spasmodic. Its chief medical application is in the treatment of fevers of a malignant type, to support the strength of the system in the advanced stages, and to obviate the symptoms arising from debility. With these views it is sometimes given with more advantage than any other tonic—

a superiority derived from its stimulating power being obtained with more certainty, and being more easily regulated by due administration; from its being more grateful; and probably not requiring to be assimilated by the digestive organs to produce its effect. The quantity to be given is dependent on the state of the disease: the object to be obtained is that of supporting the strength of the system until the fever has run its course: the danger to be avoided is that of giving it so largely as to occasion any degree of exhaustion. The administration is regulated, therefore, by the effect it produces; advantage being always derived from it when it renders the pulse more slow and firm, when the occurrence of delirium is prevented, when irritation is lessened and sleep induced. If the pulse be quickened, and the countenance become flushed; if it excite thirst, increase the heat of the body, and occasion restlessness or delirium, it is obviously injurious, and the dose must either be diminished, or its use suspended. In typhus, the proper rule is to give it till the pulse fills, the delirium abates, and the extremities warm; and it should be repeated on the smallest appearance of stupor, quick and sinking pulse, or tremor. A few glasses given in the space of 24 hours will often produce all that is required from Wine; but sometimes very large quantities are necessary. In malignant sore throat a woman unaccustomed to Wine has taken three bottles of Madeira every day for some time with marked advantage.

"In extreme ulceration, or gangrene, Wine is not only the best addition to Peruvian Bark and Opium, but is a remedy on which alone there is much reliance; and in the convalescence from all severe diseases, it is an efficacious means of restoring the exhausted strength and vigour.

"When Wine is prescribed as a cordial in a state of recovery from any acute disease, or in a weakened state of the habit, it should not be taken with dinner, or any other meal, but at noon, on an empty stomach. In such a case, it is an excellent practice to get a crust of good bread, dip it piece by piece into a glass of very old rich Wine, as Canary, Tent, Maderia, Sherry, or Port, and take it every day about twelve; it is a valuable cordial. Sometimes, in convalescence from severe disease, the nerves are so irritable as to produce a fretfulness in the system on the application of stimulants; then the quantity of Wine used must be small, and Claret, Moselle, or Hock will be found the best sort."

After remarking on the adulterations to which Wines are subjected, Dr. Graham, our authority, proceeds:—

"To detect adulterated Wines we must attend to the following particulars:—Every white or straw-coloured Wine, of a sweetish taste, afterwards astringent, and at the same time new; every Wine that has an unusually high colour, not in proportion to its strength and age, or the flavour of brandy, penetrating the tongue; or, lastly, an uncommon strong flavour, may be justly suspected of adulteration. Red Wines, either of a very deep or a very faint colour; or of a woody or tart taste; and those which cover the whole of the glass, as well the bottom of the bottles, with a red sediment, are generally tinged with some colouring substance.

"In order to discover whether suspected Wine contains any metallic adulterations, we are possessed of an excellent chemical test, discovered by Professor Hahnemann of Germany, and known by the name of *Liquor Vini Probatorius*. It is prepared as follows: 1 drachm of the Dry Liver of Sulphur, and 2 drachms of Cream of Tartar, are shaken taken together in 2 ounces of distilled water, till it be completely saturated with hepatic gas; the liquor is then filtered through blotting paper, and kept in a close-stopped phial. From 16 to 20 drops of this liquid are dropped into a small glass, filled with suspected Wine; if this turn only thick, with white clouds, and deposit only a white sediment, we may be certain that it contains no metallic ingredient whatever; but if it turn black, or even muddy; if its colour approach to that of a dark red, if it have first a sweet and then an astringent taste, it is certainly impregnated with sugar of lead, or some other impregnation of that metal, equally destructive. If, however, the dark colour be of a blue cast, not unlike that of pale ink, we may expect the Wine to contain iron. Lastly, if the Wine be impregnated with copper or verdigris, it will deposit a sediment of blackish-grey colour. This experiment ought to be made with a freshly prepared test, and in the open air. See *Beverages, Drinks, &c.*

WINTER'S BARK. The bark of a tree, called by botanists *Drymis Winteri*, of the natural order *Magnoliaceæ*, has stimulant and aromatic properties, and may be used for similar purposes as cinnamon and canella bark; it is said to be good in scurvy, vomiting, and paralysis, and may be so for dyspepsia.

WINTER GREEN. The botanical name of this plant is *Ganetharia Procumbens*, it belongs to the heath family *Ericaceæ*. It is



called in North America, where it is indigenous, Deer Partridge and Tea-berry; also Mountain Tea, the leaves in a dried



state being used as a substitute for the Chinese plant; they are also used medicinally, acting as stimulant aromatics, astringents, and emmenagogues; they are said to be chiefly useful in chronic diarrhoea, owing to the large quantity of tannic acid which they contain, and are sometimes given with the view of increasing the secretion of milk. The whole plant has an aromatic odour and taste, owing to the presence of a volatile oil which is generally used by medical practitioners. It requires to be administered with caution.

**WOLFFIAN BODIES.** Substances by which the kidneys are preceded in the embryo, and which were first observed by Wolff; hence the name. They are commonly called *False Kidneys*.

**WOMB.** This most important organ in woman is situated in the cavity of the pelvis: from whence, when distended in pregnancy, it rises into the abdomen, with the general lining membrane of which and the pelvis, called the peritonæum, it is covered; it is of a flattened pear shape, and is held in its place by elastic ligaments; in its unimpregnated state it is about 3 inches in length, by two in breadth across the broadest part, and one in thickness. At the period of puberty it weighs about  $1\frac{1}{2}$  ounces; after parturition from 2 to 3 ounces; and in the ninth month of utero-gestation

from 2 to 4 pounds; it is supplied with glands, vessels, and nerves, the latter of which constitute an extensive network over its entire surface. Dr. Lee observes:—"Dissection proves that the human uterus possesses a great system of nerves, which enlarges with the coats, blood vessels, and absorbents, during pregnancy, and which returns after parturition to its original condition, before conception takes place. It is chiefly by the influence of these nerves that the uterus performs its varied functions of mensuration, conception, and parturition, and it is solely by their means that the whole fabric of the nervous system sympathises with the different morbid affections of the uterus. If these nerves of the uterus could not be demonstrated, its physiology and pathology would be completely inexplicable."

Under the head of *Pregnancy, Menstruation, &c.*, we have already spoken of some of the affections to which the Womb is liable. It may be the seat of inflammation, in which case there will be the usual local and constitutional symptoms of inflammatory affections, and the same treatment will be required: unnatural enlargements, tumours, polypus, are also among the diseased condition of the Womb, in which we may include cancer, which chiefly affects the neck of it. Then we have displacements of the organ, in which it falls backwards, forwards, or downwards; the latter is commonly called "falling," or "bearing down;" (see *Prolapsus*, also *Pessary*). This is very common among women of the lower orders, who have borne many children, and arises chiefly from want of care and attention after labour; the ligaments which ought to retain the organ in its place become relaxed, and remain permanently so. Displacement of the Womb is not unfrequently a consequence of allowing the bladder to become unduly distended. To the medical man alone should be entrusted the treatment of all such cases; they are necessarily obscure, and the general symptoms of many of them the same; these are a sensation of uneasiness and weight about the part; there is an almost constant dragging pain; imperfect or irregular performance of the functions of the bladder; difficulty in emptying the bowels; sometimes discharges of blood or matter; and not unfrequently great nervous irritation, resulting in hysteria, dyspepsia, obstinate vomiting, &c. Rest in a recumbent position, warm fomentations of the part, leeches if necessary; bandages and other mechanical means of support;

gentle aperients; sedatives and emollient medicines are the only general remedies which can be recommended. Very commonly an examination will be required, and no sensible or pure minded woman will refuse this, however repugnant it may, and must be, to her feelings. She must, of course, have confidence in her medical attendant, or she will not permit it. Into much of the minutiae of uterine diseases, it would be impossible to go in a work on this; they can never be understood, nor properly treated, by a non-professional.

**WOODS.** A term often applied to the medicinal woods generally, such as Guaiacum, Mezereum, Sarsaparilla, &c.

**WORMS.** There are several kinds of these troublesome parasites which infest the intestinal canals of man; those most generally found there are the *Ascarides*, small Thread Worms, varying from the eighth of an inch, to one and a half inches in length; they are mostly in the rectum, or last gut. The *Lumbrici* are long round Worms, from 2 or 3, to 10 or more inches in length; they are of a yellowish white, or brownish red colour, and are usually found in the small intestines. The *Tenia*, or Tape Worm, occupies mostly the upper part of the intestinal tube, but is occasionally found in every part of it. There are two sorts of *Tenia*; one, the commonest (for out of this see Vol. I., p. 311), frequently grows to an enormous length (as much as 30 or 40 feet), and generally comes away entire; the other passes off in one or more joints, which resemble pumpkin seeds.

As may be expected, from the highly organized and sensitive parts which they occupy, Worms cause great constitutional derangement, resulting in all kinds of bad symptoms, more especially affecting the stomach and head; hence we have in these cases variable appetite, sometimes deficient, at others absolutely voracious; pains in the stomach, fetid breath, nausea, head-ache, vertigo and giddiness, irritation about the nose and anus; frequently cough and disturbed rest, and a disordered state of the bowels. In children we have a hard and tumid belly, with slimy stools, and sometimes convulsive fits. Occasionally in adults, as well as children, Worms give rise to epileptic fits, and cause great emaciation.

An excessive use of fruit and vegetables, or sugar, or any other highly nutritive substance, favours the generation of Worms, which most frequently infest those of a relaxed habit, with weak digestive organs; the greater indulgence in sweets, and too common abstinence from salt, appears to be

the main reason why children are most troubled with them.

Worms are more common in some countries and districts than others, and it has been noticed that they are particularly so in parts where much milk and cheese are taken. It has been asserted, that a habit of eating meat in a partially raw state will be pretty sure to produce them.

**Treatment.** This must be of a tonic and strengthening character; such medicines as tend to invigorate the system are the best, and especially those which act upon the stomach and intestines; Salt, preparations of Iron, Sulphur, and Camphor, are those which may be principally depended on, in conjunction with an avoidance of vegetable and saccharine food. About 1 ounce of common Salt dissolved in nearly  $\frac{1}{2}$  a pint of water, and taken in the morning fasting, twice a week for some little time, will generally bring away any kind of Worms, if the plan is followed out, especially if a pill containing 1 grain of Calomel and 3 of Extract of Colocyinth, be taken at bed-time the previous night. At the same time should be taken a strengthening mixture, composed of Sulphate of Iron, 12 grains; Infusion of Quassia, 12 ounces; Tincture of Ginger, 2 drachms. Dose, two table-spoonsful twice a day. Or else, Sulphate of Iron and Quinine, each 12 grains; dilute Sulphuric Acid, 24 minims, Cinnamon Water, 12 ounces: dose as above.

For Tape Worm, Castor Oil and Spirits of Turpentine is often given; about  $\frac{1}{2}$  an ounce of the latter, and 2 drachms of the former, is the dose: it should be taken fasting, and may be repeated two or three times, at intervals of two or three days or so. Pomegranate Bark is a very old and useful remedy for this kind of worm: the mode of administration is to boil 2 ounces of the bruised bark in  $1\frac{1}{2}$  pint of water, down to a pint, the whole of which is to be taken in the course of the morning, fasting, in four draughts, with intervals of half an hour between each. Should this not be effectual the first day, it may be repeated two, three, or even four times. Another remedy is the Oil of Male Fern (for mode of administering which see *Fern*); and another, substance called *Kousso* (which head also see). Rue, Tansy, Tin Filings, Tobacco, and a variety of other substances, have likewise been recommended, but those mentioned appear to be the most efficacious. For the species called *Lumbrici*, the bursting pods of the *Cowhage* (which see) are no doubt useful; and for the small white thread Worm, so frequently infesting the



last gut of children, about  $\frac{1}{2}$  a pint of Lime Water should be injected once a day, and an active aperient pill, or powder, or a dose of Castor Oil, be given once a week. Should this not effect the desired object, inject a solution of Salt in water, or a strong decoction of *Worm Seed* (which see):

*Ching's Worm Lozenges*, and most patent medicines used for the same purpose, are composed generally of Calomel, with Scammony, or some other drastic purgative.

Although salt is recommended as a remedy for Worms, yet salt meat is not good for persons so troubled: plenty of it should be eaten with fresh animal food, and the few vegetables that may be taken; but it is better to avoid these altogether for a time, as well as fruit, and live chiefly upon bread and farinaceous puddings.

**WORMIAN BONES.** The triangular bones sometimes found in the course of the suture of the parietal and occipital bones, and first described by Olaus Wormius, hence the name: anatomists call them *Ossa triquetra*.

**WORM SEED.** Under the several heads of *Santonica*, *Strigelia*, and *Southernwood* (see *Wormwood*), we have already spoken of anthelmintics which have this popular name. The plant here figured is the *Ery-*

simon called Jack-by-the-Hedge and Sauce alone, which has a strong odour of garlic,



and was formerly eaten by country people, in sauces, with boiled meat, bread and butter, &c. Botanists term this latter plant *Erysimum Alliaria*.

**WORMWOOD.** This plant, the *Artemesium Absinthium* of botanists, belonging to the natural order *Compositæ*, has long been a popular remedy for worms; hence its common name: it has a strong penetrating odour, and a bitter and aromatic taste, which is owing to the presence of a volatile oil, which, as well as the dried tops, is given as a vermifuge, as a bitter tonic, antiperiodic, and emmenagogue. Externally the plant is used in discutient and antiseptic fomentations. The dose of this Powdered Herb is from 20 to 30 grains; of the Essential Oil, from 2 to 4 drops; of the Extract, from 5 to 20 grains.

*Salt of Wormwood*, formerly much used medicinally, is impure carbonate of potash, obtained from the ashes of this and other plants.

The Sea Wormwood (*Artemesium Maritimum*) has similar properties to the above, but is seldom used. The common and Chinese Mugworts (*A. Vulgaris* and *A. Chinensis*) belong to the same genus of plants, as do also the common and Tartarian Southernwood (*A. Abrotarum*, and *A. Santonica*): they have a general agree-

*simum Cheroides* of botanists, whose seeds have likewise a reputation for destroying Worms. It belongs to the natural order *Cruciferae*, and is nearly allied to the Hedge Mustard, *Erysimum Angustifolium* (also here figured), and also to the plant com-

ment in their properties; the broken flower-buds and stalks of the latter are



commonly sold under the name of Worm Seed. See *Santonica*.

**WORT.** The Teutonic word for herb. Hence the names of many plants, such as Lungwort, Liverwort, St. John's Wort, &c.

**WOUNDS.** A recent solution of continuity in any soft part of the body, occasioned suddenly by external causes, and generally attended with hemorrhage at first, is a wound. It may be one or the other of six kinds. 1st an *Incised Wound*, made by a sharp instrument, effecting a simple division of the fibres. 2nd a *Lacerated Wound*, one in which the fibres, instead of being cleanly divided by a sharp instrument, are torn asunder by violence; the edges in this case are not straight, but jagged and uneven. 3rd a *Contused Wound*, one made by a violent blow from some blunt instrument, or unyielding surface; this resembles the preceding; 4th a *Punctured Wound*, one made with a narrow pointed instrument, as a sword or bayonet. 5th a *Poisoned Wound*, such as the bite of a viper, mad dog, &c., or a slip of the lancet in dissecting bodies in a state of decomposition. 6th *Gunshot*

*Wounds*, one caused by a bullet, or other hard substance, propelled from a musket.

The *treatment* of Wounds, must of course, depend very much upon their character; if it be a clean cut or chop, we should first staunch the blood, by bathing it with cold water, cleaning away any extraneous matters with a soft sponge; then bring the edges of the Wound together so that they shall unite evenly, and fix them so, with strips of adhesive plaster; a space being left between each slip for the escape of any blood or matter which may form. Should the Wound be of any great magnitude, so that the edges gape when unconfined, they should be drawn together by means of two or three stitches; in making which, a threaded needle (a curved one) should first be passed through the flesh, inwards, about a  $\frac{1}{4}$  of an inch from the edge of the Wound, then on the other side outwards; the ends of the thread are then to be brought together and tied tightly; the stitches should be an inch or more apart, they must not be drawn or dragged together with great force, or they may cut through the parts, nor must they remain in too long, or they may cause irritation: from two to four days will be sufficient for them to answer every useful purpose; between them, strips of adhesive plaster should be placed, and if a limb, a roller bandage should cover the whole. If the plaster is not readily procurable, a piece of linen may be bound round, and smeared with white of egg. Should the Wound become painful and throb, and the patient feel chilly and uneasy, it is likely that there is matter forming which requires a way of escape; in this case remove the plaster by washing it with a sponge dipped in warm water; then either put on a warm poultice, or lint, dipped or saturated with warm water, with a piece of oil skin over it, to prevent rapid evaporation, this mode of operation should be continued until pain and inflammation cease, and nothing but healthy pus is discharged; if any simple strapping with adhesive plaster will then do.

A *stab* which goes deep is more difficult to heal than a surface incision, because, even if it does not injure an important organ, it may lead to the formation of matter amid the under tissues, when the Wound is closed at the top, and for this a way of escape must be made.

A *lacerated Wound* caused by a hook or blunt instrument, should be first sponged clean, the torn portions laid in their natural positions as nearly as possible; then the edges of the Wound brought together by strips of sticking plaster, putting over the



whole a thick layer of lint dipped in cold water, and bandaging just tight enough to keep the dressing secure; the lint should be kept moist.

In *bruised Wounds* there is generally some sloughing of the injured parts; to remove which warm poultices are necessary, otherwise they may be treated like clean cuts. When the sloughing is over, and healthy granulations begin to form; apply water dressing, and adhesive plaster as above.

In *gunpowder Wounds* there is often both bruising and laceration, and sometimes burning also; seldom much bleeding unless a large vessel is injured; in the latter case, pressure must be applied for a time, however painful; if it be a vein or an artery, it must be taken up and tied as directed under the head *Artery*; if there is not this complication, the treatment should be the same as that prescribed for torn or bruised Wounds.

*Punctured Wounds* from thorns or splinters often lead to serious results; if the offending substance can be drawn out, by means of a needle or a pair of tweezers, it should be done; if not, poultices will assist in removing it, and keeping down the inflammation which is sure to arise from its presence amid the tissues; there will most likely be a small abscess formed, and when this is opened, and the matter discharged, the thorn or splinter will probably come with it, or may be removed. Sometimes from this apparently slight cause we have *Tetanus* or *Lock Jaw* (which see); or an irritative fever as the result of the inflammatory action, the treatment must be based upon the supervening symptoms; generally leeches, active aperients, and the same as that for *inflammation* will be required.

*Wound from a fish, or crochet hook.* This is not generally very difficult to heal, unless the system is in an unhealthy condition, in which case a mere scratch will suffice to set up inflammatory action; the great difficulty is the first, that of extracting the instrument, which, on account of its barbed point, cannot be drawn out in the ordinary way: a slight incision will therefore be necessary; if the hook has no handle, or one that can be taken or cut off, the best plan is to depress the blunt end so as to cause the barbed point to penetrate the integument upwards and make its way out; then take firmly hold of the point, and through the fresh opening made by it, draw out the whole of the hook; if this cannot be done, a slight cut, as far as the point has

penetrated, will be necessary; and then a little careful manipulation will free the hook; afterwards strapping and cold water dressing should be applied, or a poultice if there is much inflammation.

*For Wounds and Lacerations of the Scalp*—Surgeons are now pretty generally assured that the best treatment is to free the torn piece from dirt or foreign bodies, and restore it as quickly as possible to its natural situation, no cutting away of any part (as practised formerly) is now advised, and sewing is scarcely ever necessary; let the hair be cut or shaved off round the wound, draw the edges together with strips of adhesive plaster, and apply over it cold water dressing.

For treatment of Wounds in other parts of the body, and the erysipelatous symptoms shall frequently accompany them, see heads of the various parts in which they are likely to occur, and *Erysipelas*.

**WOURALI.** A poisonous preparation made by the American Indians from the Wourali or Ururi vine (*Strichnos Toxicaria*), whose bark, together with the juice of several other plants, is subjected to a peculiar process of boiling, and reboiling, to extract and prepare the principles on which the poisonous effect depends. This poison, with which the Indians tip their arrows, acts virulently when affecting the blood, while in small quantities it may be taken into the stomach with impunity. It has been suggested as a remedy for both locked-jaw and hydrophobia, but can scarcely be recommended without greater experience of its effects.

**WRIST.** (In Latin *Corpus*. See *Hand*.) The wrist is chiefly liable to sprains and dislocations; for the reduction of the latter it is necessary for one person to grasp the forefinger and hold it steady, while the principal operator extends the patient's hand, by either taking hold of the forefingers, or of a handkerchief applied above the joint of the thumb. As soon as sufficient extension is made, the muscles will direct the bones into their proper places. Then the wrist should be bound up with a wet roller, and splints applied, one behind and one before, reaching to the roots of the fingers. See also *Sprains*.

**WRY-NECK.** An involuntary and fixed inclination of the head towards one of the shoulders. See *Neck*.

**XANTHOS** (Greek for yellow). Hence the terms *Xanthic Oxide*, a species of calculus observed by Dr. Marcet, and so named from the lemon-coloured compound which it forms from the action of nitric acid; *Xanthogen*, is a term applied to the radical

of *Hydroxanthic Acid*, from its property of forming yellow compounds with certain metals; *Xanthorrhiza*, yellow root, the root of the *X. Apifolia*, a North American plant, reputed to be an excellent tonic, but not used in this country; *Xanthozylum*, the Prickly Ash (*X. Fraxineum*), used in the United States in chronic rheumatism.

**XEROPHTHALMIA** (*xeros*, dry, and *ophthalmos*, the eye). A form of ophthalmia, denoting the dryness of the eye in a particular stage of the affection. See *Eye*, *Ophthalmia*.

**XIPHOID** (Greek *xiphos*, a sword, and *eidos*, likeness). Sword-like; applied to the cartilage of the sternum, on account of its shape.

**XYLOBALSAMUM** (Greek *xylon*, wood, and *balsamum*, balsam). A balsam obtained by a decoction of the twigs and leaves of the *Amiris Gileadensis*, in water. It is thicker and less odoriferous than the *Balsamelon*, or Oil of Balsam, which is prepared in much the same way, but by a quicker process.

**YAM.** The roots of the *Dioscorea Sativa*, or Cultivated Yam, and of the *D. Alata*, another species, are much used as an article of food in the East and West Indies, and in America; they contained a great quantity of starch, and, when well cooked, are tolerably nutritious.

**YAVA-SKIN.** In the Polynesian Isles this is the name by which Elephantiasis, or Barbadoes leg, is called, because it is supposed to be originated by drinking the heating beverage called *Yava*. Like the gout among ourselves, it is regarded in a sort of honourable light.

**YAW** (the African name for a raspberry). Applied to the disease *Frambæsia* (which see).

**YEAST.** A substance generated during the vinous fermentation of vegetable juices and decoctions, rising to the surface in the form of a frothy, flocculent, and somewhat viscid matter; its chief use is to promote fermentation, but it sometimes forms the chief ingredient in *Poultices*, (which see).

Yeast was at one time in high repute as an antiseptic in typhus fever, and is worthy of some confidence. It is well suited to domestic practice, since it is a simple remedy, and easily procured. It is said that a son of the Earl of Essex was given over by Dr. John Willis in typhus fever, and afterwards restored by sponging the body with vinegar, and using yeast internally by mouth and clysters. One of the best modes of giving this article is in an infusion of malt, a combination from which Dr. Haygarth, of Chester, says that he has derived great advantage in the treat-

ment of putrid fever. A teaspoonful of yeast is mixed with a pint of strong wort, and the vessel then covered close and placed near a fire. In less than an hour it is covered with a white cap of yeast, and should be drunk in that state. One or two pints of this mixture must be taken, in divided doses, during the day. If good wort cannot be got from the brewer, the patient's friends may make it, by pouring a little more than two pints of hot water on two pints of malt, which, after it has stood closely covered for two hours, should be strained off for use. The water should not be poured on the malt boiling, but be allowed to cool for a few minutes.

*Artificial Yeast* may be prepared thus:—Boil a quantity of malt, and pour off the water, leaving the moist grains in a warm place to ferment. The bitterness, which frequently renders Yeast so unpleasant, may be taken off by straining the Yeast through a sieve or cloth, with a quantity of bran in it, or by dropping into it a small piece of bread, baked or toasted nearly black.

**YELLOW FEVER.** One of the several forms of malignant remittent which attacks people in warm climates; it is called yellow from the lemon or orange hue which covers the body, and the yellowish matter which is vomited at the commencement of the disease. See *Fevers*.

**YELLOW WASH.** A lotion for ulcers, formed by mixing Corrosive Sublimate and Lime Water together, in the proportion of 1 ounce of the latter to 2 grains of the former; the result is a precipitate of a deep yellow colour, which is a per-oxide of mercury, with a little muriatic acid.

**YELLOW GUM.** This is the jaundice of infants; the mildest form in which that affection presents itself. See *Jaundice*.

**ZEDOARY.** The roots of several plants of the *Zingiberaceæ*, or ginger family, are, in the tropical countries, where they chiefly grow, used medicinally as aromatic stimulants and vermifuges, and sometimes, although but rarely, in this country also.

**ZEINE.** A principle obtained from maize or Indian corn; of its peculiar proportions but little seems to be known.

**Zero** (probably from the Arabic *tsaphara*, empty). This term, meaning nothing, is used to denote a cypher, and fill the blank between the ascending and descending numbers in a scale or series. Zero, in the thermometers of Celsius and Reaumur, is the point at which water congeals. The Zero of Fahrenheit's instrument is fixed at the point at which the mercury stands when immersed in snow and common salt,



and is  $32^{\circ}$  below the freezing point of water. In Wedgewood's pyrometer the Zero corresponds with  $1077^{\circ}$  in Fahrenheit's scale. See *Heat, Thermometer*.

**ZINC.** A metal known in commerce as *Spelter*, and obtained from calamine and blende, in the former of which it is combined with carbonic acid, in the latter with sulphur.

Its chief medicinal preparations are:—1st, the *Acetate*, which is rarely given internally, but is well adapted for astringent lotions and injections, being milder and less irritating than the sulphate; it is found to answer well in leucorrhœa and gonorrhœa, and also as a collyrium in ophthalmia; strength,  $\frac{1}{2}$  a drachm to a pint of distilled water. *Carbonate*, commonly called Prepared Calamine, used to form plaisters and cerates, and ointments, for dressing wounds and ulcerations. (See *Turner's Cerate*.) *Chloride*, sometimes called Butter of Zinc, is one of the most powerful caustics known; has been given in small doses, but is generally used for external application, to destroy the surface of a cancerous or phagedænous sore, or the eruption of lupus, being safer than arsenious acid; for such a purpose, it is generally made into a paste, with flour, or combined with Chloride of Antimony.

*Barnett's Disinfecting Solution*, largely employed in hospitals, is made of the Chloride, in the proportion of 1 pound to 5 gallons of water; besides being a good deodorizer, it is said to prevent the dry rot in wood, and to preserve animal matter from putrefaction. A dilute solution may be used as a wash for foul ulcers, or scrofulous sores, or as an unction in gonorrhœa. *Cyanide* and *Ferro-cyanide*; these preparations have been employed in nervous and spasmodic disorders, dyspepsia, and neuralgia of the stomach, also for worms; dose from 1 to 4 grains, two or three times a day. *Iodine*, given internally in small doses for scrofula, also used to form a collyrium in scrofulous ophthalmia, and an ointment for friction in chronic glandular enlargement; its virtue is that of an astringent and alterative. *Sulphate*, or White Vitriol, given as an astringent in fluxes and hæmorrhoids; as a tonic in general debility; and as an antispasmodic in cholera, epilepsy, gastrodynia, hysteria, and neuralgia. In large doses it acts quickly as an emetic, without producing much nausea and prostration, as most emetics do; it is therefore well adapted for administration in cases of poisoning; for this purpose it may be given in  $\frac{1}{2}$  drachm doses, repeated every  $\frac{1}{4}$  of an

hour, in warm water; the dose as a tonic and antispasmodic is from 2 to 10 grains. In epilepsy, the dose may be greatly increased, from the minimum quantity to as much as will be borne without vomiting. This is one of the best astringent applications known, and is constantly used in collyria, gargles for relaxed uvula, injection for gonorrhœa, &c.; it makes a good injection for piles; strength 1 drachm to 1 pint of water. *Valerianate*; this salt has a strong odour, and taste of *Valerian* (which see); it is a powerful tonic and antispasmodic, and has been given with good effect in hysteria and neuralgia; dose from 1 to 5 grains. What is commonly called *Flower of Zinc*, is in fact the oxide which flies up when the metal is exposed to a temperature in the air, a little above its melting point, in the form of a fine white flocculent powder the ancients called this *Pompholix*; in Holland it was sold as a secret remedy under the names of *Arcamum Ludemann* and *Luna fixata*; its real composition was first made public by Glaubius.

**ZIRCONIUM**, the metallic basis of *Zirconia*, a substance found in the jargon, or gireon, and also in the hyacinth.

**ZOOGENY** (Greek *zoon*, an animal, and *gone*, generation.) French *zoogénie*, under which term M. Serres treats of the laws which he supposes to regulate the formation of the organs, or according to which the different parts of which they are composed seem to be produced; these laws are two in number, the law of *symmetry*, and that of *conjugaison*, the first of which has been designated "the principle of the double development of the organs," and the last, "the principle of reunion of the organs."

**ZOOLOGY** (Greek *zoon*, and *logos*, a description.) That branch of natural history which treats of animals. From this radical word *Zoon* we have several other terms, which, if not directly, are indirectly connected with the subjects discussed in this work. Such are *Zoogony* (see above); *Zoonic Acid*, acetous acid holding animal matter in solution; *Zootomy*, the anatomy, or dissection of animals, &c.

**ZYGOMA** (Greek *zygos*, a yoke.) The arch formed by the zygomatic processes of the temporal and cheek bones. The *Zygomatic Process* is a thin, narrow projection of bone, bounding the squamous portion of the temporal bone at its base; hence we have *Zygomaticus major* and *minor*, two muscles which raise the angles of the mouth, as in laughing; the term *Distortor oris* has sometimes been applied to them.

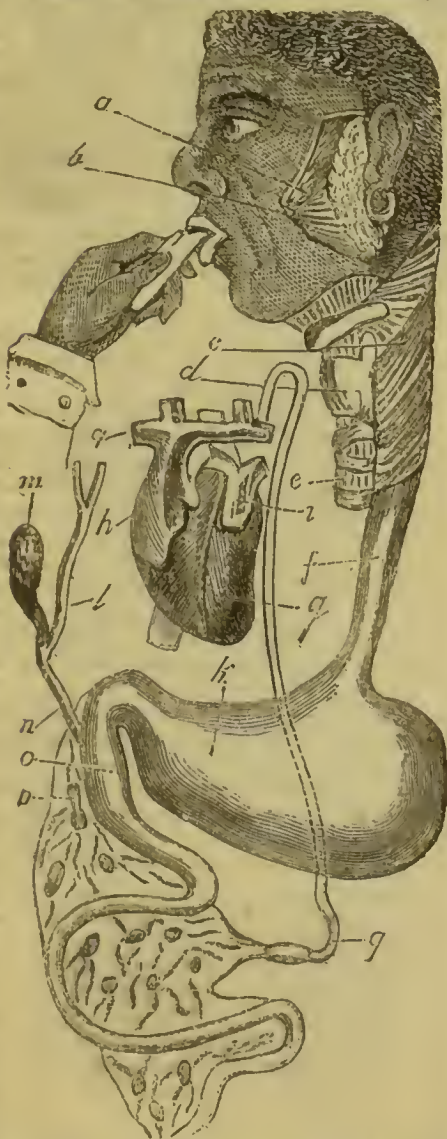
# APPENDIX.

DIAGRAM OF THE PRINCIPAL ORGANS ENGAGED IN THE PREPARATION OF FOOD.

*a*, Muscles of the Cheek; *b*, Parotid Gland; *c*, Muscles of the Gullet; *d*, Larynx; *e*, Trachea; *f*, Gullet; *g*, Left Ventricle of the Heart; *h*, Right Auricle of same; *i*,

Thoracic Duct (see these heads; also, *Alimentary Canal, Digestion, Food, &c.*)

PORTION OF MUCOUS MEMBRANE, from the alimentary canal of a human being. Elevation of the membrane, represented by *a* and *c*, are called *villi*; whilst *e* and *g* are depressions called *Follicles*; *d* and *f* represent *Epithelium*; *a* is *Villous*, when absorption is not going on; and *e*, *Villous*



Left Auricle; *k*, Stomach; *l*, Pancreatic Duct; *m*, Gall Bladder; *n*, Common Duct; *o*, Duodenum; *p*, Mesenteric Glands; *q*,

during digestion; *g*, Follicle, with the Epithelium loose (see *Mucous Membrane, &c.*)

PAROTID GLAND OF A SHEEP; exhibiting the branched and lobulated character of



glands of the human stomach, and other parts (see *Glands*).



MEDIAN SECTION OF THE HEAD PASSING DIRECTLY THROUGH THE NOSE, MOUTH, PHARYNX, AND LARYNX. *A* septum of the nose which separates the two nostrils one from the other; below is the section of the bones which form the roof of the mouth called the hard palate; *b* the tongue, beneath are the muscles by which it is attached to the lower jaw and the bone of the tongue (*h*), *c* is the soft palate and pendulum, below it is the (*u*) uvula; *d d* are the upper and lower lips; *i* one of the



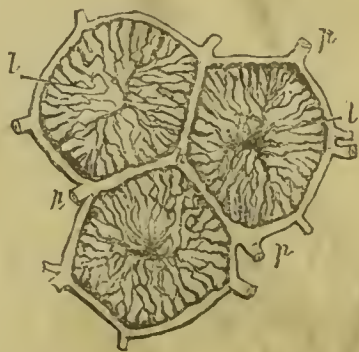
arches of the fauces or back part of the mouth, *p* Pharynx, forming the large cavity behind the soft palate, into which all the food is passed from the mouth; *k* thyroid cartilage which forms the sides of the Larynx, which is the organ of voice; *v* crocod cartilage, which forms the lower part of the Larynx, and completely surrounds it; *v* that part of the Larynx called the glottis, which opens externally, and is covered by the epiglottis; *6* indicates the exact point at which the Eustacian tube opens into the Pharynx; *3* is the passage leading from the mouth into the Pharynx, called by anatomists the *isthmus faucium*; *4* is the opening from the Larynx into the mouth, and is covered just above by the epiglottis. Behind the whole of the parts described is the spine, along which the gullet runs into the stomach. See parts named, also *Ear, Head, Throat, &c.*

CONFORMATION OF SKULLS. Skull of a negro.—*a*, *b*, and *c* frontal, occipital, and temporal bones; *d* zygoma; *e* and *h* cheek and nasal bones; *f* and *g* upper and lower jaws.

This cut exhibits very strikingly the difference of conformation between the skull of a negro and that of the European races. See *Skull*.

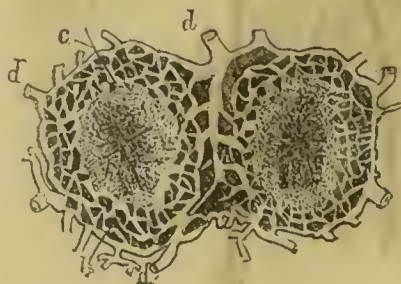


LOBUS OF THE LIVER, showing Hepatic and Portal Veins: *p* branches of



Portal Vein; *l* Capillaries connecting Hepatic and Portal Veins; *h* Hepatic Veins.

LOBULE SHOWING THE HEPATIC DUCTS: *d d* the Hepatic Ducts; *b b* minute rami-



fications. See *Arteries, Blood, Liver, Veins*.

## ADDITIONAL PLANTS.

A FEW errors, and omissions in placing some of the botanical cuts having una-



No. 1.

voidably occurred, we take this opportunity



No. 2.

of correcting the former, and supplying the latter. The plant which is here depicted is

the Common Juniper (*Juniperus Vulgaris*), spoken of at page 61 of Vol. II., where will be found a cut of the Saviue (*Juniperus Sabina*), a nearly allied plant, whose medical properties are set forth at page 267 of Vol. II.

The next cut represents the White Poppy (*Papaverus Alba*), the variety from which *Opium* is obtained; (see that head, and *Poppy*).

The next (No. 3) is the Galbanum, a cut of which was not introduced under that head (see Vol. I., page 306), because there was some uncertainty as to the exact plant



No. 3.

which produced the gum resin, so called. There appears, however, no doubt that the above is one of the plants from which it is obtained; it is the *Galbanum Officinale*, and is a native of the west coast of Africa.

No. 4 is the Horse Radish, spoken of, but



not figured, at page 12 of Vol. II., whose acrid taste and stimulating properties are well known to most persons. We would take this opportunity of again impressing upon our readers the necessity there is for extreme caution when using the root of this plant for culinary purposes—that of *Aconite* having been sometimes mistaken for it. A comparison of the above cut with that given at page 17, Vol. I. (head *Aconite*) will show that there is a considerable difference in the foliage, blossoms, and growth of the two plants.



No. 4.

No. 5 is the Gutta Percha, whose name is far more familiar to the public than the appearance of the plant, whose botanical name, &c., is given in Vol. I., page 342.

The curious-looking plant numbered 6 is the *Euphorbia Canariensis*, one of the large family of Spurges, from which the drastic gum Euphorbium is obtained (see that head, Vol. I., page 233). The plant there



No. 5.



No. 6.

figured is the Spurge Laurel — *Thymelia Pontica*.



No. 7.

Flea Bane (see Vol. I., p. 276) the plant there figured is the Great Throatwort (*Cam-*



No. 8.

*panula Trachelium*), a British herb, the bitter and somewhat acrid decoction of

which is used for a gargle in sore throats. Of Throat-worts we have several native species, all of which were formerly in good repute as medicinal herbs, although they are but little used now, except in some rural districts.

No. 8, is another cut of the Deadly Nightshade, already figured at Vol. I. p. 75. We wish to impress our readers with the outward characteristics of this highly poisonous plant. British herbalists distinguish no less than eighteen species of Pond Weeds. In No. 9 we have one of the most conspicuous of them, it is called the Broad-



No. 9.

leaved Pond Weed, which is common in our waters, putting out small whitish flowers, in long slender spikes in August. Some medical virtues are supposed to reside in its ribbed leaves and weak brown stalks.

No. 10 is the *Myrosperma Toluiferum*, the plant which yields the Balsam of Tolu, which is procured by making incisions in the bark during the hot season, and collecting it in spoons made of black wax. (For a full account of its medical uses and properties, see *Balsam*).



No. 11 is Paul's Betony, a common name of the Speedwells, it was formerly much es



No. 10.



No. 11.

of the pretty German Speedwell  
(*Veronica Chamodrys*), sometimes called  
Eyebright, and Cat's Eye; like the rest of

teemed for its real or supposed medicinal  
virtues (see *Veronica*).

THE END.



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